Issue 66 : 04 66 Years Of Service To Amateur Radio & Our Community

CrossTalk

April 2025

2025 Club Officers

President :	**Jonathan Pearce, WB2MNF**
Vice President :	**Ronald Block, NR2B**
Treasurer :	**John O'Connell, K2QA**
Recording Secretary :	**John Zaruba Jr, K2ZA**
Corresponding Secretary :	**Michael Resnick, N2WOQ**

Trustees - 4 Year Term

Charles Lanard, KD2EIB	**(2022-2025)**
Sheldon Parker, K2MEN	**(2023-2026)**
Len Rust, W2LJR	**(2024-2027)**
Earl Moore, KC2NCH	**(2025-2028)**

Directors - 3 Year Term

Chris Prioli, AD2CS	**(2023-2025)**	**Bill Price, NJ2S**	**(2024-2026)**
James Wright, N2GXJ	**(2023-2025)**	**Jeffrey Garth, WB2ZBN**	**(2025-2027)**
Al Arrison, KB2AYU	**(2024-2026)**	**Frank Romeo, N3PUU**	**(2025-2027)**

General Membership Meeting
Wednesday, April 2, 2025 @ 1900 Hours
In-Person & ZOOM : 914 7364 1808, 843147

Tech Saturday Forum
Saturday, April 5, 2025 @ 0900 Hours
W2MMD Clubhouse

License Testing Session
Thursday, April 10, 2025 @ 1900 Hours
W2MMD Clubhouse

Board of Directors Meeting
Wednesday, April 16, 2025 @ 1900 Hours
W2MMD Clubhouse

Dinner @ The W2MMD Clubhouse
Wednesday, April 23, 2025 @ 1800 Hours
W2MMD Clubhouse

Tuesday AfterNoon 2M Net @ 1200 Hours
Thursday Night 2M Net @ 2000 Hours

Monday & Thursday Night 40M Net @ 1930 Hours
7.290 MHz (+/- 5 kHz)

GCARC TechNet ZOOM Forum
ZOOM Meeting ID : 933 9943 3123, 800835

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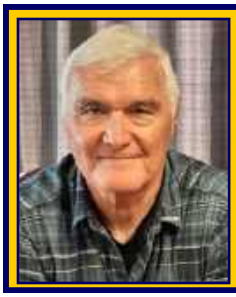


President's Letter
Jon Pearce, WB2MNF

April 2025

March was a solid month for the Gloucester County Amateur Radio Club, with members coming together for several interesting activities. We started with an orientation session on the CHIRP programming software, where many members showed up to get a handle on radio programming, leading to some useful discussions and practical experience. We also held two work sessions on DMR radio setup and operation, both of which saw decent attendance and reflected a steady interest in this part of the hobby. The turnout and engagement were a good sign of how our Club can connect when we focus on common goals.

Upcoming Activities

The Club has an exciting lineup of activities planned for the next few months. At the Wednesday, April 2, 2025 General Membership Meeting, **Anthony Luscre, K8ZT**, will present ***"A Beginner's Guide to VHF"***, a timely topic that ties in perfectly with our new VHF station upgrades. Looking ahead, May's meeting will feature a talk on the Vector Network Analyzer, followed by a June presentation on 3D printing for the ham shack.

On the Tech Saturday front, our April 5th session will walk you through turning a simple microcontroller project from a breadboard setup into a custom printed circuit board (PCB) ready for fabrication. Chris Prioli, AD2CS, and I will lead this one - if you've ever been curious about designing your own PCBs, don't miss it.

In May, Tech Saturday shifts to a hands-on build session where we'll construct the digital wattmeter featured in the February issue of QST. This handy tool blends RF components with an Arduino microcontroller, offering a chance to tinker with a mix of tech while creating something genuinely useful for your shack. Spots are limited, so reach out to Chris at cpprioli@gmail.com to reserve yours. We're also considering a July Tech Saturday project - building tape measure Yagi antennas with attenuators for fox hunting, a favorite activity that's always a hit. Stay tuned for more details as we firm up the plans.

Field Day

It's not too early to start thinking about Field Day. If you're an experienced Field Day operator or participant you've probably already been contacted by **Jim Wright N2GXJ** about your participation. And if you're a new operator who's interested in getting your "feet wet" with Field Day but have some trepidation about jumping in there will be an ***"Intro to Field Day for Newbies"*** Tech Saturday session in June that you won't want to miss. Field Day takes place the weekend of June 28-29 so mark your calendars now.

GCARC Picnic!

Save the date of Saturday May 31 for the first GCARC picnic in several years! Space has been reserved at the Red Bank Battlefield Park, and details of the event are being worked out. Look for more information soon.

President's Letter - Continued on page 3

President's Letter - Continued from page 2

"DX" Opportunities for Technicians using DMR

Our recent Saturday sessions on DMR operation drew a good number of Club members who got a firsthand look at what this mode can do. For Technician class licensees especially, DMR offers a way to chat with hams far beyond the local repeater - think of it as a handy workaround to connect with stations across the country or even overseas via internet-linked channels. It's not the same as earning a higher license and working distant stations using actual radio transmissions (that's still the gold standard for DX!), but it's a practical option for Techs without the major HF privileges or home HF stations. With just a DMR handheld and a VHF/UHF hotspot or repeater, you can join these conversations - no advanced gear required. The real link happens over the internet, so it's not a substitute for classic radio DX, but it's a nice alternative for Techs looking for options past chatting on local repeaters. If you're curious, there's plenty of support at the Clubhouse and on Discord, and DMR radios are more affordable than ever - worth a try if you're exploring your options!

Approaching The Hackers!

Hams aren't the only ones tinkering with radio these days. Last year, some of our members got curious about Meshtastic - a low-power, long-range mesh radio system - setting up stations on the 433 MHz amateur band. But there's a bigger, livelier crowd out there using nearly identical gear on the unlicensed 915 MHz band : the ***"hacker" hobbyists***. These folks are a hybrid mix of radio enthusiasts, microcontroller geeks, 3D-printing experts, and computer tinkerers, not unlike many of us.

Intrigued by this potential opportunity, we decided to dip our toes in by installing a solar-powered 915 MHz node on the Clubhouse VHF tower, naming it ***"GCARC"*** with the "short name" ***"HAM1".*** Then we sat back to see what would happen.

Almost overnight, our node lit up with connections from Philly, eastern Pennsylvania, and southern New Jersey - some even sporting ham call signs. One message pointed us to a Discord group, "Philly Radio and Meshtastic," complete with channels for amateur radio and license prep. Browsing their chats was like peeking through a window at how outsiders see ham radio : some are licensed hams puzzling over a 20-meter dipole (they could use a hand from our antenna gurus!), others are fiddling with Baofeng radios in "mysterious" ways, and a few offered blunt - but fair - takes on the "boring" 2-meter nets they've stumbled across, obviously uninterested in such an activity.

One GCARC Club leader has advised against reaching out to this group too eagerly with ham radio promotion, but I'm cautiously optimistic although agreeing that we should move thoughtfully. While their interests overlap with ours and they're a younger crowd, it's unclear if there's real potential for collaboration or if it could help with our membership challenges, especially the continuing demographic ***"sword of Damocles"*** that hangs over the ham radio hobby. We'll keep an eye on it and move forward slowly - more to come as we figure this out.

73 de Jon WB2MNF

Welcome New Club Members :

Bryan Eveland, KM4SJS, a Technician Class who lives in National Park, NJ.
Christopher Grabosky, KE2FIK, a Technician Class who lives in Delran, NJ.

We are glad to have you as members of the Club and hope to see you regularly at Club meetings, events, and activities. Hope to see you at the April 2nd General Membership Meeting, either in-person or on ZOOM, the April 5th Tech Saturday Forum, the Board of Directors Meeting on April 16th, the Dinner @ W2MMD Clubhouse on April 23rd, and the Monday Night GCARC TechNet ZOOM Forum.

We also hope to ***"SEE"*** you on the ***"AIR"*** on the following nets :

- Sunday Night Skywarn 2 Meter Net @ 1930 Hours.
- Sunday Night ARES 2 Meter Net @ 2000 Hours.
- Tuesday AfterNoon 2 Meter Net @ 1200 Hours.
- Monday & Thursday Night 40 Meter Nets on 7.290 MHz (+/- 5 kHz) @ 1930 Hours.
- Thursday Night Rag Chew 2 Meter Net @ 2000 Hours.

All 2 Meter nets are on our 147.180 MHz (PL 131.8) repeater or on EchoLink W2MMD-R.

Membership Badges Ready For Pick-up.

They can be picked up at the W2MMD Clubhouse or at the monthly General Membership Meetings

Dave Danichkin, KD2UXC
Jim Foster, W3JNF
Deirdre Hebert, AD2GQ
Ronald Jackson, KE2CJB
Bob Jensen, KC3WWL
Ben Johnson, NE2R
Calvin Keller, N2YMS
John McGonigle, KC3ZJX
Jack Snyder, AI2D

General Membership Meeting

Wednesday, April 2, 2025 @ 1900 Hours

Pfeiffer Community Center

Simulcast Live Via ZOOM : Meeting ID : 914 7364 1808; Passcode : 843147
Join ZOOM Meeting Link : https://bit.ly/3Pt4dLO

Go to : www.w2mmd.org to download the ZOOM log-on instructions PDF

Beginner's Guide To VHF

By Anthony Luscre, K8ZT : www.k8zt.com (k8zt73@gmail.com)

In this month's program, **Anthony Luscre, K8ZT**, will delve into the VHF and UHF Bands, which span 30 to 300 MHz and 300 to 3,000 MHz, respectively - all accessible to Technician Licensees. The session will focus more specifically on 6M, 2M, 1.25M and 70 cm, 33 cm, 23 cm bands.

VHF/UHF amateur radios are available in different types, including FM-only radios and multimode radios. FM radios enable users to make simplex contacts, use analog repeaters for extended communication distances, establish satellite links, send messages via Winlink, and engage in APRS (Automatic Packet Reporting System). Multimode radios expand these capabilities by including SSB (Single Sideband), CW (Continuous Wave) communication, and digital modes.

A VHF/UHF station can take various forms - mobile, base, portable, or handheld. These stations require essential components such as a radio, an antenna, a coaxial feedline, and a power source. Depending on the application, antennas can range from simple verticals to complex steerable beams.

For effective use of VHF/UHF radios, operators should understand repeater access, optimize their radios for their use, and address common troubleshooting issues. Practice using simplex operation is encouraged; there are several frequencies available for this purpose. Many VHF/UHF radios come with additional features for enhanced functionality. Digital FM radios require specific configurations depending on the communications format and a matching repeater. It is interesting to also know that many repeaters can even be accessed via your computer. Operating analog FM repeaters involves programming the radio with the appropriate frequency, offset, and tone. There are numerous software applications to help simplify this setup process.

Finally, mentors and training opportunities are invaluable for new operators, providing guidance and hands-on experience from the ham radio community. Participation in activities and exercises not only sharpens skills but also prepares operators for emergency communication scenarios.

This session isn't just about learning, it's about unlocking the full potential of VHF and UHF Bands and discovering how far your amateur radio passion can take you. Don't miss it!

Regional (Atlantic & Hudson Divisions) Hamfests & Events

April 06, 2025 : Two Rivers Amateur Radio Club, TRARC 53rd Hamfest/Computer Show, Lincoln Borough VFD No. 184 Social Hall, 4312 Liberty Way, Elizabeth, PA, **www.trarc.org**

April 12, 2025 : Warren County Radio Club, W2WCR's Spring Annual Swap Meet 2025, Aviation Mall, 578 Aviation Road, Queensbury, NY. **www.w2wcr.org**

April 19, 2025 : Drumlins Amateur Radio Club, 38th Annual Drumlins Hamfest, Palmyra VFW Post 6778, 4306 Route 31, Palmyra, NY. **www.drumlinsarc.us**

April 26, 2025 : Sussex Amateur Radio Association, Delmava Amateur Radio & Electronics Expo, ARRL Delaware State Convention, Cheer Center, 20520 Sand Hill Road, Georgetown, DE. **www.radioelectronicsexpo.com**

April 26, 2025 : York Hamfest Foundation. York Hamfest, Glenview Alliance Church, 10037 Susquehanna Trail S, Glen Rock, PA. **www.yorkhamfest.org**

April 27, 2025 : Maryland Mobileers Amateur Radio Club, Spring Hamfest, Odenton Volunteer Fire Company, 1425 Annapolis Road, Odenton, MD. **www.sites.google.com/view/marylandmobileers/hamfest?authuser=0**

"The big thing about being in a club and being a "Ham" is to help each other when there is a need "
- W2SEF

GCARC TechNet ZOOM Forum

GCARC TechNet ZOOM Forum is scheduled to be available every Monday Night until December 29, 2025.

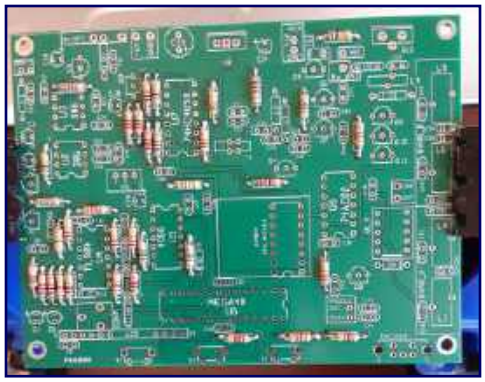
There will not necessarily be a topic scheduled every Monday Night, but the opportunity is available to schedule succeeding topics of interest on consecutive Monday Nights.

Every Monday @ 1930 Hours

Date &Forum Topic : See e-mail and website for more information

Go to : https://gloucestercountyarc.weebly.com/gcarc-technet.html
for TechNet Information Resources and ZOOM Instructions

Meeting ID : 933 9943 3123 ; Passcode : 800835
Join ZOOM Meeting Link : https://bit.ly/3K8bWwj



Tech Saturday Forum

April 05, 2025 @ 0900 Hours

W2MMD Clubhouse

Forum Topic : From Breadboard To Circuit Board
Designing Printed Circuit Boards For Ham Projects

Presented By : Jon Pearce WB2MNF & Chris Prioli AD2CS

In this session Jon and Chris will show how to take a small microcontroller project from a breadboard mockup to a PC board design that can be fabricated by JLCPCB (https://jlcpcb.com) or some other source. The primary objective is to get participants over the initial barrier of not knowing how to get started with these projects. By the end, participants should be able to design a simple circuit board and send it for fabrication. Come give it a try - it's not as difficult as you might think!

Q & A Session About All Things Ham Radio and Socializing!

The HF Station Will Be Available For Local Operation!

Tech Saturday sessions are held at the W2MMD Clubhouse on the first Saturday of the month following the Wednesday Night General Membership Meeting and are designed to be hands-on collaborative events focused on using the Clubhouse resources to demonstrate various aspects of Amateur Radio and related technical areas. Previous sessions have covered USB software-defined radios, Raspberry Pi and Arduino devices, satellite operations and other similar topics.

We would like to invite all of our new members as well as our veteran members to our Tech Saturday Forums to help answer any questions and discuss any and all issues the new members have come across as they progress through the ***Amateur Radio Experience.***

The Discussion Theme is a QSO starting point - a way to initiate a conversation. All Tech Saturdays are an open QSO of all subjects of Amateur Radio interest. All questions are welcome as well as a venue for hams to show off their latest ham radio projects or gadgets. Have a problem programming that HT, we can help! Not sure what radio or antenna to buy, we can help!

All Club Members who would like Clubhouse access to use its radio equipment would have to have some brief “Elmering” on the Clubhouse rules, such as using the alarm system, the A/C and heaters, the antenna system, and the radio equipment. The Club’s HF station is reserved for local use on Tech Saturday.

All are welcome - Hams and Non-Hams - Club Members and Non-Club Members.

Winter Field Day 2025

Certificate of Participation

presented to Amateur Radio Station

W2KBF

for their active and invaluable participation during the 2025 Winter Field Day Event.
The WFDA, gratefully thanks you for your effort and recognizes your dedication to improving your operating skills, which may be crucial during an emergency event.

Contacts Logged: 44

We passionately believe that Ham radio operators should practice portable emergency communications in winter environments as the potential for freezing temperatures, snow, ice, and other hazards present unique operational concerns. WFD is formatted to help increase your level of preparedness for disasters and improve your operational skills in subpar conditions.

Marvin Turner

Marvin Turner, President
Winter Field Day Association

There is a new website for the Gloucester County Amateur Radio Club Volunteer Examiner Team. Everything you need to know about getting your ham license or upgrading your license can be found on this website. Pass It Around!

https://veteam.w2mmd.org

So you find our website confusing, can't find anything, Well So Do I!!

I have created a page *(What, Not Another Page!!)* called "Quick Links"

On this page you will find "Buttons" to some the most popular pages
I will add more as time goes on, but I hope this helps your journey navigating through your Club Website!
https://gloucestercountyarc.weebly.com/quick-links.html

GCARC Monthly VE Exam Testing Summary - March 13, 2025

By Chris Prioli, AD2CS

The regular monthly VE session was held on 13 March at the W2MMD Clubhouse. There were two single exam candidates, one of whom were attempting to earn a Technician (Element 2) license, and the second was seeking an upgrade to General status. The session was attended by a total of 12 GCARC Volunteer Examiners. The Team Liaison for this session was **Chris Prioli AD2CS**.

The candidates, both of whom were successful, included :

- **Christopher Grabosky KE2FIK (newly-issued call sign) - earned a Technician license**
- **Angela Metzger KE2DRJ - upgraded to a General license**

While Angela has been a Club member for several months now, Chris decided to join the Club and was approved at the March Board of Directors meeting.

The VE Team proctored an exam session using completely electronic methodologies. This means that the candidates completed the exams online, and that all grading and submissions were done online as well.

The GCARC VE Team that proctored the exam session included the following Volunteer Examiners :

- **Gary Reed N2QEE**
- **John O'Connell K2QA**
- **Earl Moore KC2NCH**
- **Greg Ciraula K3GC**
- **Marylu Ciraula K3MLC**
- **Mike Resnick N2WOQ**
- **Rich Subers W2RHS**
- **Steve Farney W2SEF**
- **Court Smith KD2SPJ**
- **Mike Thompson KG4JYA**
- **Ed Champion N2RO**
- **Chris Prioli AD2CS**

The next regularly-scheduled VE session will be held on 10 April 2025, at 1900 hrs at the Clubhouse, as usual. The VE team will be using the new ExamTools system to its fullest capability, within our current technological means.

It is important to note that all test candidates going forward will be advised, whenever possible, to pre-register and pre-pay for the exam online. Specifics of that process are explained at : **https://veteam.w2mmd.org**

"Dinner @ The W2MMD Clubhouse"
Wednesday, April 23, 2025 @ 1800 Hours
W2MMD Clubhouse

Gloucester County Amateur Radio Club
YouTube Channel
https://www.youtube.com/@W2MMD

Sunday, April 20, 2025

Saturday, April 12, 2025

New Members Support Group & Discord Channel

- **Organized By Jim Beury, KE2DRN**
- **Objective : To focus Club resources on the needs of newly licensed members**
- **Supported by "new_members" Discord Channel**

Additional Support :

- **Saturday Morning @ The W2MMD Clubhouse**
- **GCARC@MAILMAN.QTH.NET Club E-mail Reflector**
- **E-Mail President @ w2mmd.org**

Need a ride to a Club meeting, event, or activity?

Just send a message to the Club's e-mail reflector asking if a member can pick you up

GCARC <*at*> MAILMAN <*dot*> QTH <*dot*> NET

All Club members have access to this FREE e-mail service

NTS Resources

The National Traffic System® (NTS) is a network of Amateur Radio operators who move information during disasters and other emergencies. General messages offering well wishes also move through the NTS to help test the system and to help Amateur Radio operators build traffic handling skills. While the NTS is primarily set up to serve the United States and Canada, it is possible to move traffic internationally through the NTS through various local, regional, area, and international network connections.

- **NTS 2.0 : https://nts2.arrl.org**
- **NTS Manual : https://www.arrl.org/nts-manual**
- **NTS Methods and Practices Guidelines Table of Contents : https://www.arrl.org/table-of-contents-nts-methods-and-practices-guidelines**
- **Handling Instructions : https://nts2.arrl.org/hx-handling-instructions**
- **Numbered Texts : https://nts2.arrl.org/numbered-texts**
- **Form Encoding Rules for Form : https://nts2.arrl.org/form-encoding-rules-for-forms**

DAs and DITs

>> Congratulations to **Robert McMeekin, WA2CJI** (ex. KE2FEG) on his new vanity callsign.

>> Condolences to **Steve Bromhead, KB2RTZ** and family on the passing of his mother.

>> Congratulations to **Angela Metzger, KE2DRJ**, on upgrading to **General Class** license. She also has been accepted to attend the ARRL Teachers' Conference Newington in June. The ARRL Foundation pays all of the expenses of this conference including lodging. The participant needs only to pay a $100 attendance fee. The **GCARF Foundation** has agreed to pay this $100 expense in support of Angela's STEM activities.

>> Congratulations to **Robert Brown, AD2RB** (ex. KD2YUG) on his new vanity callsign and upgrading to **Amateur Extra Class** license.

Gloucester County Amateur Radio Club Elmers

We are still looking for some more Club Elmers. If you would to add your name to the Elmer's List, send your specialty to w2mmdgcarc@gmail.com. Here is what we have so far :

- **Tony Starr, K3TS : Antenna Construction; Contesting; CW Help and Training**
- **Ken Bozarth, KN2U : Antennas**
- **Jeff Welsh, KD2AZI : Boat Anchor Repair & Operation; Raspberry Pi; Arduino; Python; POTA; Mobile Installation & Operating**
- **Karl Frank, W2KBF : Digital Messaging (FLDIGI, WinLink)**
- **Lenny Rust, W2LJR : DMR Radios & Programming**
- **Ron Block, NR2B : Lightning protection & grounding**
- **Chris Prioli, AD2CS : Kit Building; Antenna Building; Radio Programming; PC and Electronic Troubleshooting; Ham Radio Licensing & Studying**
- **John Zaruba Jr, K2ZA : Yaesu System Fusion Radio Programming; POTA; SOTA; CW Learning & Operating**
- **Jerry Barnish, K2EAB : Radio Astronomy**
- **Mike Thompson, KG4JYA : Radio Astronomy; VARA (HF and FM); WinLink**
- **Steve Farney, W2SEF : WSJT-X; FT-8; LoTW; TQSL; Grid Square**
- **Carl Wittig, N2CRW : Audacity® Audio Editor**
- **Gary Mirkin, WA3SVW : FLDIGI; MMSSTV**
- **Jon Pearce, WB2MNF : Satellite Communications**
- **Frank Romeo, N3PUU : Toilet Installer; Jack-Of-All Trades - Master Of None**
- **John Hill, W2HUV : Local & Remote W2MMD HF Station Operation; Training & Support**
- **Dave Sheppard, W2PAX : National Traffic System**
- **Bob Pantazes, W2ARP : How To Manage QSL Cards Properly**

Save The Date
4th Weekend in June (June 28-29)

By Jim Wright, N2GXJ

Always the 4th weekend in June, it's not too early to save the date for ham radio on your calendars for the weekend of Saturday June 28. Why? Because that is the date of ARRL's Radio Field Day weekend this year!

In case you are not familiar with Field Day, this is when tens of thousands of crazy hams like us set up off-the-grid with portable radios and antennas in fields all over the United States and Canada to try and make as many radio contacts as we can in 24 hours using Morse Code, Voice, and Digital modes.

As those who are familiar with Field Day can attest, it is quite the event. Being part practice for emergency communications, part public relations, part informal contest, part educational opportunity, part campout, part picnic, part socializing, and a big part fun, many consider this the highlight of their entire radio year. You really owe it to yourself to come out to see it to believe it. So, please do! Save the date, then join us to give it a try.

How to get involved?

Suffice to say your Club is planning to be in on this event in a big way again this year. And for that, we want to encourage everyone to participate if they can in one way or another. Not only do we hope to make lots of radio contacts, we'd also like to go after lots of bonus point activities as well. And for that, we do need your help. Volunteers are needed in many areas. Please jump in! This is your chance to get involved. No prior experience required!

Here's a sampling of areas for you to consider when looking for ways to get involved, and who to contact for more information. Perhaps you are able to help out?

- **Culinary Staff : Jeff Garth WB2ZBN** has volunteered to be our Field Day Culinary Service Coordinator again this year. He's looking for culinary staff volunteers to help with the Field Day food and with maintaining the water coolers during the event (note to all : the 4H fairground property where our Clubhouse sits is all strictly non-alcoholic. Please do not bring any). If you are able and would like to volunteer, please contact Jeff direct. His number is in the Club directory. He's looking forward to your call!
- **Public Relations Bonus Points Coordinator :** I'm still looking for someone to work with as our Field Day public relations bonus points coordinator. Could this be you? This person would coordinate with other Club members to get a site visit by invited elected official bonus, to get a site visit by invited served agency official bonus, to get the social media with evidence bonus, to get the media publicity with evidence bonus, and to plan for and run our on-site information booth as a bonus to welcome the public and introduce visitors to all that we are doing during this event. Please contact me (Jim Wright, N2GXJ) if you can help us be the point person to help coordinate getting these available bonus points. Your help would be most appreciated!
- **Bonus Educational Activity Coordinator :** There's a 100 point bonus for hosting a formal educational activity during the Field Day. See the Field Day packet for some suggestions. Anyone able to help us out here? Please let me (Jim, N2GXJ) know if you will. Thanks!

2025 Field Day - Continued on page 13

2025 Field Day - Continued from page 12

- **Bonus Message Handling Activities Coordinator : Karl Frank W2KBF** has already agreed to help us get bonus points for formal message sent to ARRL SNJ Section Manager, and for additional formal NTS/ICS-213 messages to be sent via radio from the Field Day site. But there's another 100 bonus points available if we can receive and provide a copy of the W1AW Field Day bulletin that will be broadcast from ARRL headquarters. We need someone to coordinate getting a copy of that bulletin to provide with our bonus point evidence this year. The bulletin is repeated in several modes, so more than one volunteer can step forward here to help ensure we get a copy of the message to submit this year. Can you do this for us? If yes, please let me (Jim, N2GXJ) know if you will. Thank you!
- **Field Day Scoring Coordinator :** We need someone to ensure all the station logs are collected before the sites shut down after lunch on Sunday so that we can compute our claimed score ahead of the July 2, 2025 General Membership Meeting. And then we need them to upload our claimed score and required documentation to the ARRL ahead of their deadline so that our effort will get listed in the December 2025 QST publication. Can you do this for us? If yes, please let me (Jim, N2GXJ) know.
- **Deputy Safety Officer : Herb Dyer KT2Y** will be our on-site safety officer, responsible for inspections and the bonus safety checklist. Herb, who has served in this role before and has graciously agreed to take on the role again this year, will be driving up from Florida where he lives to be part of our Field Day this year. To help him out, I would like to appoint a deputy safety officer this year to help with coverage for the multi-day Field Day event, and learn the ropes from him. Could this be you? Please contact Herb direct if you can help out.
- **Station Chairs and Their Radio Teams :** This is where the majority of help for Field Day is needed. Putting multiple radios on the air simultaneously at Field Day to cover different band-modes is what we do. And that takes a lot of coordination and people to pull this off. Most of our claimed score comes from our Club's efforts here. And there are bonus points to be had too. Did you know in addition to any points scored for each contact made from those stations we can also get another 100 bonus points for each radio we can put on the air simultaneously (up to 20)? And there are additional bonus points available when operators 18 years and younger make contacts, and for recently licensed or generally inactive hams who make contacts from our get on the air bonus station. Suffice to say there are multiple opportunities to contribute to our Club's on-the-air QSO count this year, if you care to join in.
    - ◊ So, what stations do we have lined up so far to operate? As of this writing, we have 9 stations so far, with Station Chairs (Owners) and band-mode assignments as shown below. As updates come available, I'll have Jeff post them to our Field Day 2025 page at w2mmd.org

        - ♦ **Karl Frank W2KBF : GOTA bonus station with coach, HF Phone (voice)**
        - ♦ **Herb Dyer KT2Y : Natural power bonus station and 2M/70CM Phone (voice)**
        - ♦ **John O'Connell K2QA : Satellite bonus station**
        - ♦ **Tony Starr K3TS : 20M CW**
        - ♦ **Sheldon Parker K2MEN : 40M CW**
        - ♦ **Darrell Neron AB2E : 80M (night) and 15M (Day) CW**
        - ♦ **Jim Wright N2GXJ : 10M Phone (voice)**
        - ♦ **Chris Prioli AD2CS : 20M Phone (voice)**
        - ♦ **Bill Price NJ2S : 40M SSB Phone (voice)**

    - ◊ Considering participating by helping out at one or more of these stations as a member of that station's radio team? As you can imagine, station chairs are always looking for volunteers to help them with their stations, from setup, to teardown, to operating in shifts, and for everything in between. Please contact station chairs direct with any questions, and to help out on their teams.

2025 Field Day - Continued on page 14

2025 Field Day - Continued from page 13

- ◊ Considering bringing your own radio to Field Day this year to be your own station chair? Please contact me (Jim, N2GXJ), and I'll help coordinate and get you a spot on the Field, if you want to give it a try.

So there it is, save the date - June 28 and 29, Field Day 2025. As a fellow Club member, please encourage everyone to come on out to help out where they can, but importantly, find a way to join in on the fun. Turns out that if you are remote or otherwise cannot make it to our W2MMD Field Day site in person, there may still be ways like last year for you to participate and have your contacts counted as part of an aggregate score for the Club. If you've any questions, don't be shy to ask.

Again, everyone is welcome, with no prior experience required!

Hope to see you there! Respectfully, Jim (N2GXJ), your appointed 2025 FD chairman

Gloucester County Amateur Radio Club
2024 Field Day Scores Summary

	2024	Rank		Total #
Score	12,377			12,377
Class	9A	2	out of	3
QSOs	2,721			
Power Mult	2			
Section	SNJ	2	out of	9
Division	AT			
Participants	54			

Gloucester County Amateur Radio Club
2024 Field Day Scores Breakdown

Callsign	QSOs	Class	Power	Participants	Total
W2MMD	2,123	9A	2	50	9,791
WB2GUK	294	1D	2	1	1,326
WA2IBZ	129	1D	2	1	566
AC2PT	153	1E	2	1	556
WB2QEF	22	1E	2	1	138
Totals	2,721	9A, (2)1D, (2)1E	2	54	12,377

The Education Connection

By Chris Prioli, AD2CS - chris@ad2cs.com
www.ad2cs.com

April 2025

As I write this, we are a bit more than a week away from the start of the ninth session of the GCARC Ham Exam Preparation Class series. These classes kick off on Monday, 31 March and then on Tuesday, 1 April for the Technician (Element 2) and General (Element 3) groups, respectively. At this point, there are no students registered for the Amateur extra (Element 4) class, again!

I figure that sooner or later, some of our Generals out there will want to upgrade to Amateur Extra, even if just to avoid the "notches" in the bands. When that happens, we will be fully prepared to run an Extra class again, but it is not going to happen this time around, I guess.

Now is the time to enroll in one of our license classes. Remember too, that for this and the next session, GCARC is rebating the $15 (fifteen dollar) ARRL test fee to those students who attend at least eight of the weekly classes, and then pass the exam on the first attempt. This promotion will not last forever so take advantage of it now. Complete rules for this promotion were published in the January, February, and March issues of CrossTalk.

Anyone who is interested in attending a licensing class, please visit the License Classes page of the **GCARC website (https://gloucestercountyarc.weebly.com/license-classes.html)** and complete the enrollment form found there. Submit the form and I will receive it in my email inbox. Then, go ahead and pay the registration fee of $35 by submitting that amount to ***education@w2mmd.org*** via PayPal. Doing so will hold your seat in the class of your choice.

Moving on, we are looking forward to the May 10, 2025 Tech Saturday Forum, at which we will be building the Wattmeter/Dummy Load project that was described in the February issue of QST magazine. This project was laid out in an article by Bob Fontana AK3Y, and uses an Arduino as its "brain" - to do all of the heavy lifting. This build uses two separate custom PCB's and a 3-D printed enclosure, as well as several small components - both SMT and THT - and a small OLED display. All of the necessary parts and components will be provided. Hit me up with an email if you want to reserve a seat in the group for this build.

A facsimile of the February 2025 QST article is on the next 3 pages. A downloadable PDF is available on the Tech Saturday Forum webpage at : **https://gloucestercountyarc.weebly.com/tech-saturday-forum.html** .

That's it for now… See you next month!

W2MMD

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A Wideband Dummy Load with a High-Accuracy Wattmeter

This inexpensive dummy load/Arduino-based wattmeter for 2 meters, 70 centimeters, and 23 centimeters is easy to build and performs like a commercial device.

The completed dummy load/wattmeter.

Bob Fontana, AK3Y

In their November 2018 *QST* article "Build an Inexpensive 150 W Dummy Load with Wattmeter," authors Jack Purdum, W8TEE, and Al Peter, AC8GY, designed and built an Arduino-based wattmeter with a dummy load that was limited to the HF through the lower VHF bands.

In "A High-Power Dummy Load for DC through VHF" in the August 2023 issue of *QST*, Stephen Werner, AG4W, used high-power flange-mounted resistors in a dummy load that could handle legal-limit power at up to 225 MHz.

My local FM repeater club recently decided to design a dummy load/wattmeter that covers 2 meters, 70 centimeters, and 23 centimeters. It had to accurately measure power levels from a few tens of milliwatts to 100 W, and it had to be compact enough to use for ARRL Field Day or other portable operations. Another desirable feature was the ability to use the same instrument in the VLF through HF spectrum, as several of us were also experimenting in the 630- and 2200-meter bands. A truly wideband device was of paramount interest. To achieve these requirements, it uses a flange-mounted high-frequency/high-power resistor with a diode detector and an Arduino microcontroller. The associated software uses a few techniques to achieve very high accuracy, even at very low power levels.

Flange-Mounted Resistors

Flange-mounted resistors typically use either a thin beryllium oxide (BeO) or thick aluminum nitride (AlN) film for the substrate material. Tantalum is often used as the resistive material. The mechanical and electrical properties are well controlled, resulting in superb high-frequency behavior — often well into the microwave range. Because of their thermal conductivity, these flange-mounted resistors can dissipate a lot of power despite being quite small. They are usually inexpensive, at less than $5 for a 250 W unit. But before acquiring one, understand that beryllium is highly toxic. Don't ever open one of these devices.

Design Concept

The dummy load/wattmeter consists of two printed circuit boards (PCBs): one for the wattmeter detection circuitry and another for the Arduino/display circuitry and interface. The detector board is flush mounted to a 45 × 60-millimeter aluminum heatsink, and the load

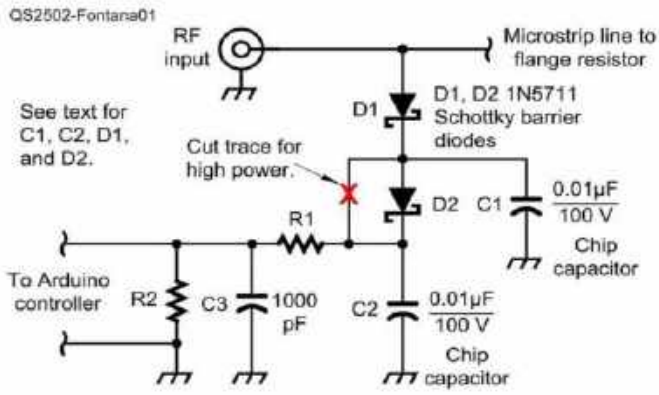

Figure 1 — The dummy load schematic.

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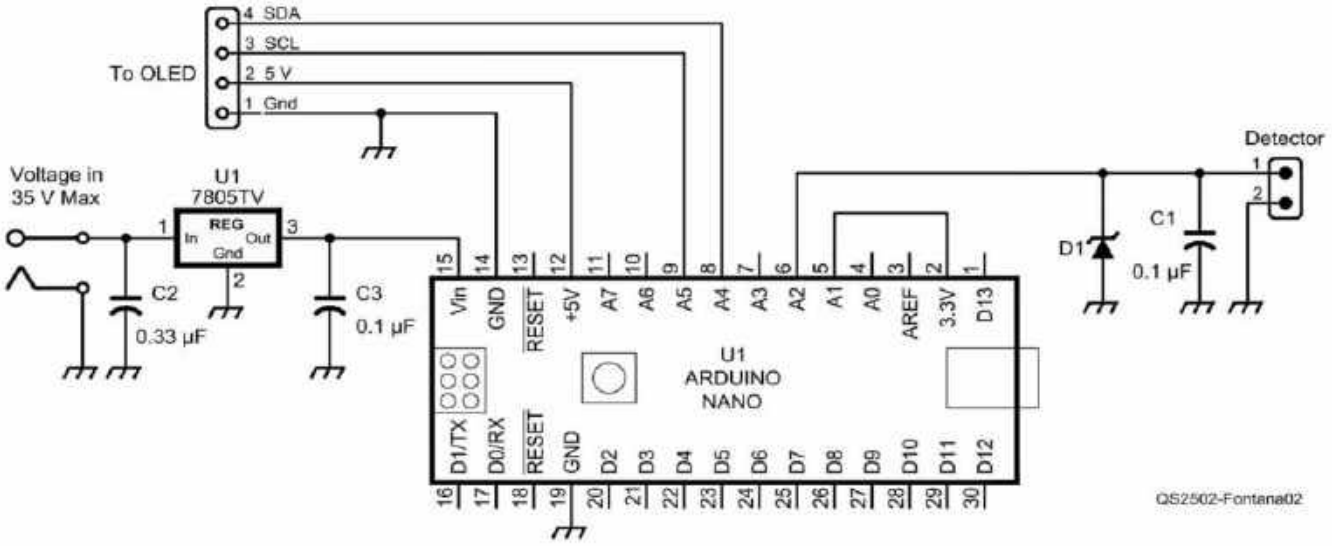

Figure 2 — The Arduino controller and display schematic.

resistor is also mounted on the heatsink. The PCB construction allows for the use of 50 Ω microstrip interconnects, which results in a wide frequency response. The Arduino-based wattmeter portion of the project incorporates automatic calibration of the resistor-divider network using the on-board 3.3 V reference voltage. The resistor-divider network limits the detector voltage into the Arduino's analog inputs. More detailed descriptions of the calibration techniques used and the associated software design can be found at **www.arrl.org/qst-in-depth**. There, you will also find the Gerber files for the detector circuitry and Arduino-based controller PCBs.

Circuit Details

The schematics for the two PCBs are shown in Figures 1 and 2. The assembled PCBs are shown in Figures 3 and 4. The complete parts list for the two boards and pictures of the bare PCBs are shown at **www.arrl.org/qst-in-depth**.

The flange-mounted power resistor mounts to the heatsink using thermal compound. A short length of 50 Ω microstrip connects it to the SMA input connector. Because the heatsink is small, operation at 100 W should probably be limited to no longer than 1 minute. For higher power levels, or for longer transmit durations, you can flip the unit so that the heatsink is on top. If you flip the unit, you must also flip the OLED display. This requires a couple of lines of code change. Add the line "display.setRotation(2);" after each instance of "display.clearDisplay();"

The completed assembly is shown in Figure 5, which demonstrates the power from a Baofeng UV-5R being

Figure 3 — The assembled dummy load/detector.

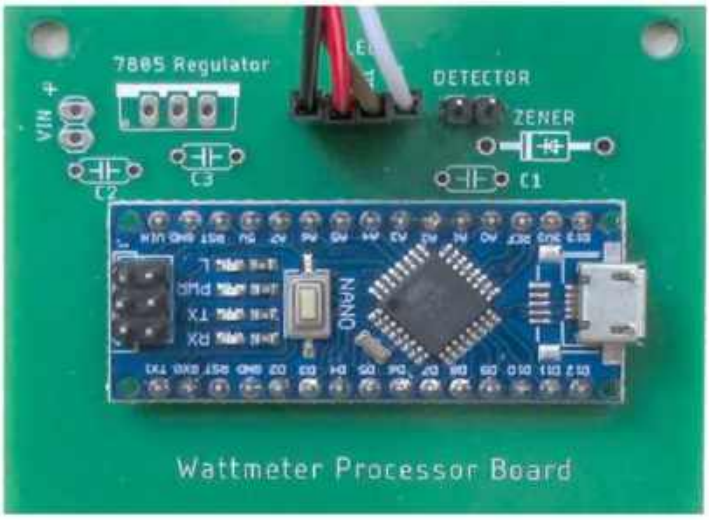

Figure 4 — The assembled Arduino controller.

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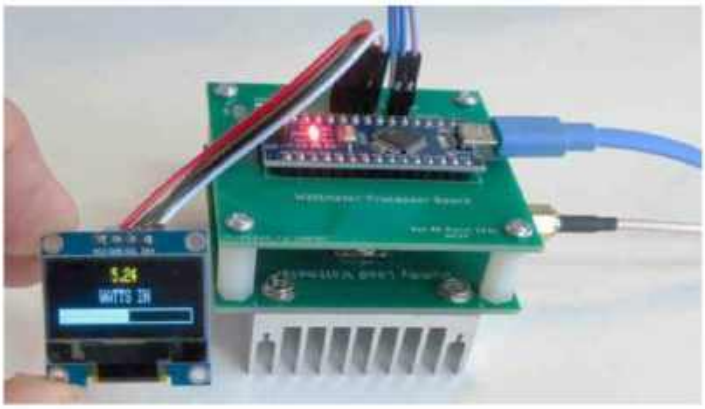


Figure 5 — The assembled and unpackaged dummy load/wattmeter.

measured at 146.52 MHz. The software provides an adaptive bar graph display so that changes in power level can be observed both numerically and graphically — the latter is useful for tuning applications. The lead photo shows the dummy load/wattmeter packaged in a 3D-printed case. The 3D STL files are included at **www.arrl/qst-in-depth**.

Performance and Recap

The measured standing wave ratio was less than 2.0:1 to 1360 MHz and less than 1.5:1 from dc to 755 MHz. Using my Icom IC-9700 as a signal source, I compared this unit to an Agilent 8482A power sensor and HP437B power display on 2 meters, 70 centimeters, and 23 centimeters. The results are shown in Figure 6.

You can see how close the two setups compare, down to the tens of milliwatts (the minimum readable signal level for this unit is approximately 5 mW). On 2 meters, the worst-case error was 1.6% (0.069 dB). On 70 centimeters, the worst-case error was 3.3% (0.14 dB), and on 23 centimeters, it was 9.9% (0.41 dB). However, keep in mind that the Agilent 8482A sensor element has specifications for only ±1.6%, and the HP437B power sensor can add another ±1.5% variation.

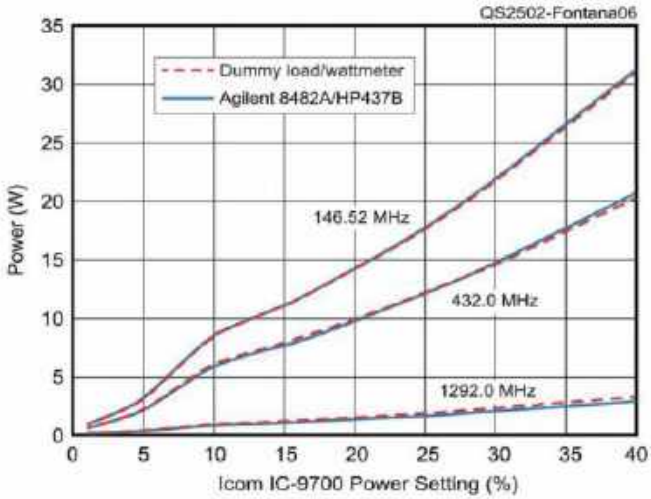
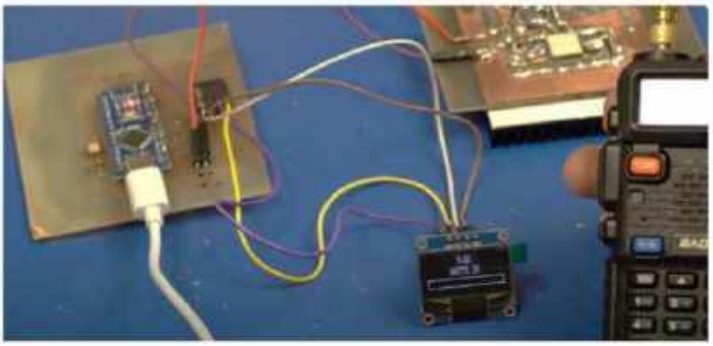


Figure 6 — A power measurement comparison between the dummy load/wattmeter described in this article and the commercial Agilent 8482A sensor.



Click here to watch ARRL Lab Digital RF Engineer John McAuliffe, W1DRF, take you along as he builds a wattmeter.

This article describes a field-portable dummy load/wattmeter that can be used from dc to the 23-centimeter band with an accuracy rivaling that of expensive Agilent test equipment. With the ability to measure power levels down to 10 mW, the unit is ideal for QRP and QRPP operations as well.

See *QST* in Depth for More!

Visit www.arrl.org/qst-in-depth for the following supplementary materials and updates:

- ✓ Calibration techniques for the resistor-divider network and associated software design
- ✓ Gerber files for the detector circuitry and Arduino-based controller PCBs
- ✓ Complete parts lists for the dummy load PCB and the wattmeter PCB
- ✓ Pictures of the bare PCBs
- ✓ STL files for the device's 3D-printed case

All photos provided by the author.

Dr. Robert J. "Bob" Fontana, AK3Y, was first licensed as a Novice in 1965. He holds a PhD in electrical engineering from Stanford University, and he is a Life Fellow of IEEE. Bob worked as an RF and systems engineer at Raytheon and Litton-Amecom. He was also part of the electrical engineering faculty at Carnegie Mellon University. Prior to his retirement, Bob was the president of Multispectral Solutions, Inc., a small business that specialized in the development of ultra-wideband technology for communications, radar, and tracking/positioning applications. Now retired, Bob enjoys working satellites using SSB, CW, FT4, and GMSK packet, as well as operating low power, CW, and digital modes on HF. Bob can be reached at **ak3y@arrl.net**.

For updates to this article, see the *QST* Feedback page at www.arrl.org/feedback.

VOTE
If you enjoyed this article, cast your vote at www.arrl.org/cover-plaque-poll

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Gloucester County Amateur Radio Club
2025 Family Picnic

WHEN : Saturday, May 31, 2025
WHO : All Club members, spouses and family members
WHERE : Red Bank Battlefield Park
Hessian Avenue Pavilion
100 Hessian Avenue
National Park, NJ 08063
TIME : 1100 - 1400 Hours

We have reserved the Main Pavilion at Red Bank Battlefield Park in National Park, NJ, from 11:00 AM to 2:00 PM on Saturday, May 31, 2025. This park is located across the Delaware River from the Philadelphia airport and Navy yard. The park offers some historical interest, including the James and Ann Whitall House, and some remnants of the original Fort Mercer. Consider this an opportunity, as Club members, for us and our families to "get out of the shack" for a while, to meet each other and socialize a bit in the sunshine of a great outdoor setting!

Just because we have the Main Pavilion rented for 3 hours doesn't mean you have to stay the whole time. You're welcome to drop in and stay for as long as you'd like while we have the pavilion rented.

As for the picnic, we'll have the basic hot dogs, burgers, buns, water, soda, and standard items like catsup, mustard, and buns, along with paper plates, silverware, cups, napkins, and similar supplies covered by the Club.

If you'd like, you can bring a little something extra to share with others, helping to keep the costs down. We'll have sign-ups for things like coolers, ice, chips, salads, and desserts available at the April and May Club meetings to help make sure we have everything covered without too much overlap.

We'll post updates to the Club website, and will have a chance to talk some more about the picnic at the upcoming April and May Club meetings.

If you would like to donate any side dishes, dessert, etc.
Please send an e-mail at : PICNIC@W2MMD.ORG

7th Annual ARRL SNJ Section Convention

Presented By The

Gloucester County Amateur Radio Club

W2MMD

Celebrating Our 66th Year

www.w2mmd.org

Open To The Public At 8:00 AM : *Rain or Shine*

47th Annual Hamfest : Sunday, September 7, 2025

ADMISSION : $10.00	***Vendors and Tailgaters of new and used radio and electronic equipment***
Non-Ham Spouses and Kids FREE	

Monday & Thursday Night 40 Meter Net @ 1930 Hours
7.290 MHz (+ / - 5 kHz)
NCS : Jim Clark, KA2OSV

ADIF Logs Wanted When Operating As W2MMD @ The Clubhouse

By Jim Wright, N2GXJ - Contact me via e-mail on Club Roster List

It is a common courtesy in ham radio to be able to QSL 2-way contacts made with other hams. We're pretty good about doing this for our field day contacts made each year, but are falling behind in this for contacts we make from the Clubhouse as W2MMD.

So here is the ask :

If you operate from the Clubhouse as W2MMD (e.g. on HF, UHF/VHF, or on Satellite, at Tech Saturday, or during contests or other), please email me the electronic log entries in ADIF format from the logger program you used for those contacts?

That way, just like I do following field day each year, I can get them uploaded to LOTW and to eQSL to offer the courtesy of an electronic QSL to those who make contact with us as W2MMD here in NJ.

Thank you

Tuesday AfterNoon Net @ 1200 Hours

Net Control Stations :
Steve Farney, W2SEF; Rich Subers, W2RHS,
Greg Ciraula, K3GC; & Jeff Garth, WB2ZBN

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks

Greg Ciraula, K3GC : April 1, 2025
Steve Farney, W2SEF : April 8, 2025
Rich Subers, W2RHS : April 15, 2025
Jeff Garth, WB2ZBN : April 22, 2025
Steve Farney, W2SEF : April 29, 2025

If you would like to be a Net Control Station for this net, please contact Steve Farney, W2SEF

Thursday Night Rag Chew Net @ 2000 Hours

Net Control Stations :
Mary Delemarre, W2TDS; Gary Mirkin, WA3SVW;
Steve Farney, W2SEF; & Jeff Garth, WB2ZBN

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks :

Jeff Garth, WB2ZBN : April 3, 2025
Mary Delemarre, W2TDS : April 10, 2025
Gary Mirkin, WA3SVW : April 17, 2025
Steve Farney, W2SEF : April 24, 2025
Jeff Garth, WB2ZBN : May 1, 2025

If you would like to be a Net Control Station for this net, please contact Jeff Garth, WB2ZBN

Gloucester County Skywarn Net

The Gloucester County Skywarn Net is held every Sunday @ 1930 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All Are Welcome To Participate

Net Control Stations : Charlie Wahl, KC2STO & Jeff Garth WB2ZBN

Gloucester County ARES Net

The Gloucester County ARES Net is held every Sunday @ 2000 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All are welcome to participate

Net Control Stations :
Steve Farney W2SEF, Bob Keogh KD2NEC, Karl Frank W2KBF, Al Arrison KB2AYU, Gary Mirkin WA3SVW, Greg Ciraula, K3GC, & Todd Woodward KD2ESH

Todd Woodward KD2ESH : April 6, 2025
Al Arrison KB2AYU : April 13, 2025
Happy Easter - No Nets : April 20, 2025
Greg Ciraula, K3GC : April 27, 2025

Anyone who is interested in joining the Gloucester County ARES Team, is invited to contact Bob Keogh at KD2NEC @ QSL.NET

ARRL Learning Center

https://learn.arrl.org

Discover how to make Amateur Radio your own.

Online courses from the ARRL Learning Center provide ARRL members with additional instruction and training for getting on the air, emergency communications, and electronics and technology

Current Website Updates : Go to this page to find out the latest changes & updates on our W2MMD Website

https://gloucestercountyarc.weebly.com/current-website-updates.html

At The Repair Bench…

A monthly column describing a recent repair bench event.

By Chris Prioli, AD2CS - chris@ad2cs.com - www.ad2cs.com

Yaesu CD-41 Lithium-Ion Battery Rapid Charge Cradle - April 2025

A while back, one of my fellow Club members **John O'Connell K2QA** brought a unit to me for repair of a strange condition. The unit was a **Yaesu CD-41 lithium -ion battery rapid charge cradle (Figure 1)**. John has a couple of these devices, which are used to charge the batteries on several different Yaesu handheld transceiver models, including the FT-2 and FT-3 radio families. The problem that was exhibited by one of his charging cradles was that under any operating conditions at all, the green ***Fully Charged*** indicator LED would remain illuminated, and the cradle would fail to charge any battery placed into it.

This charging cradle uses a three-contact system for monitoring and charging the battery. One of the three contacts connects to the battery positive terminal, one connects to the battery negative terminal, and the third contact connects to a battery monitor terminal. This third contact is key to the charging process, as it transmits the battery condition to the charger, allowing the charger to decide if and how to flow a charge current into the connected battery.

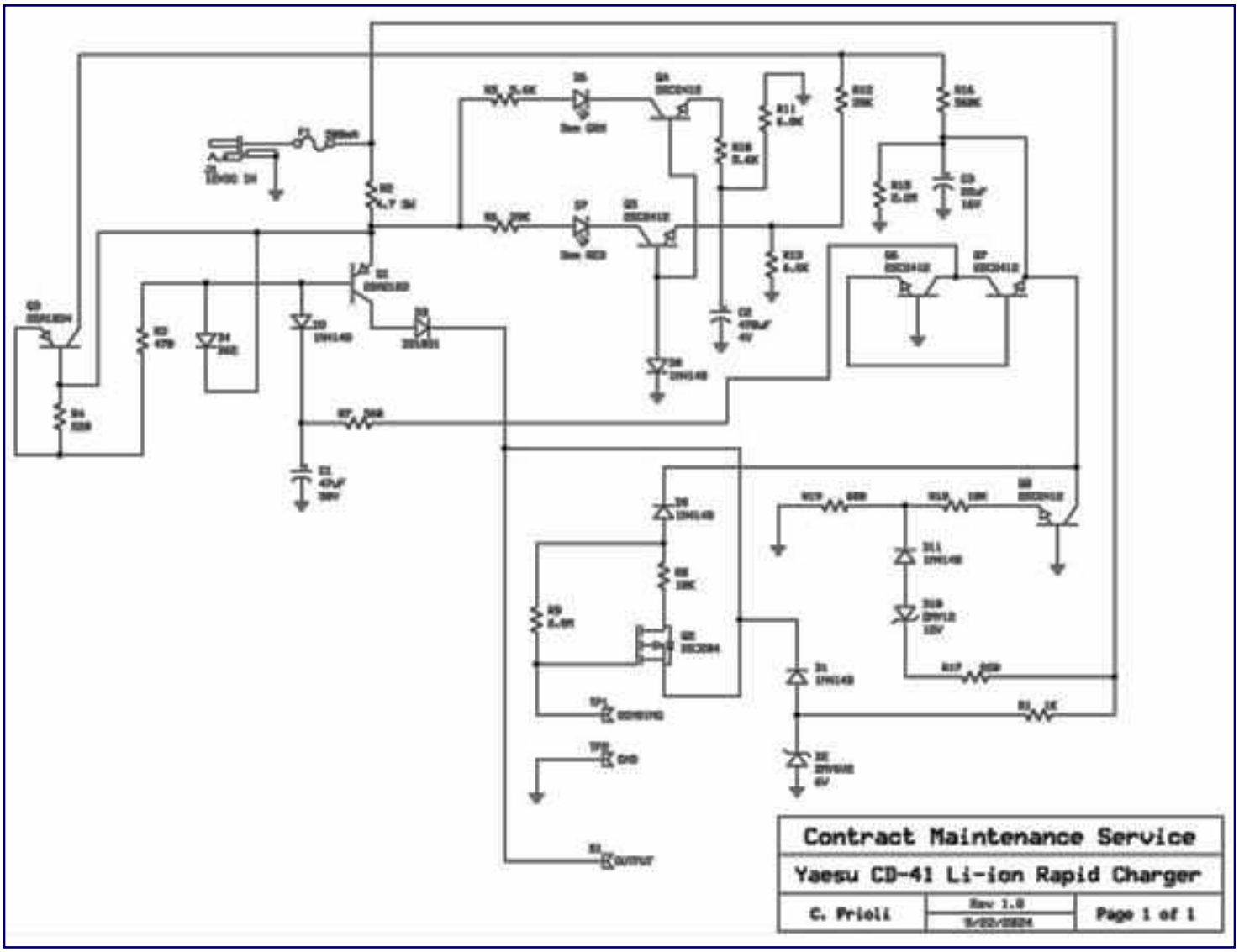
Not having any factory service or support documentation for the CD-41, I followed my normal routine of first drawing out a **schematic diagram of the unit (Figure 2)**. Then, using the new schematic, I was easily able to break the complete unit down into its functional blocks, which include :

- **A power input section**
- **An output regulation and isolation section**
- **An annunciator section**
- **An over-voltage protection section**
- **A state-of-charge monitoring section**

Let's take a quick look at just what each of these individual sections or blocks actually does in the overall circuit, starting with the power input section. The power input area provides a convenient connection point to the printed circuit board ***(PCB)*** for the current from the regulated ***"wall-wart"*** type of power supply, which is critical to the operation of the CD-41. Of the two cradles that John left with me, the specification labels are marked slightly differently. One of them (the operational one) is labeled as ***Input : DC 12 (10.5) - 16V 600mA and as Output: DC 8.4V 600mA***. The second ***(failed)*** unit was labeled as ***Input : DC 12 - 16V 600mA*** and as ***Output: DC 8.4V 600mA***. What makes this something that I would discuss is the fact that the operational unit is paired with a regulated power supply ***(Yaesu Model SAD-25)*** rated at ***10.5V 1.0A*** for its output, while the failed unit is paired with a different regulated power supply ***(Yaesu Model SAD-24)*** rated at ***12.0V 0.5A*** for its output.

At The Repair Bench - Continued on page 24

At The Repair Bench - Continued from page 23



The next functional block is the output regulation and isolation section. This consists largely of a 4.7Ω 3W wire-wound resistor, a 2SA2183 PNP silicon power transistor, and a DD1031 isolation diode. The transistor controls the current flow into the battery when it is turned on, with the flow depending upon the degree to which the transistor is biased "on". The diode prevents draining the battery back into the charging circuit if the battery is left on the charger after charging.

Next up is the annunciator section. This section consists of two LED's, one red and the other green, a pair of transistors to switch the LED's on or off, some resistors, and a 470µF electrolytic capacitor. The green LED is supposed to illuminate gradually, as the 470µF capacitor charges up, once the battery has reached full charge and the charge current is switched off. The red LED is meant to illuminate while the battery is charging, with its steady-on state changing over to a flashing state as the battery nears full charge.

The over-voltage protection circuit includes two transistors configured to form a Darlington pair, as well as a 12V Zener diode and several resistors. Its job is to prevent overcharge of the battery and over-current and over-voltage conditions throughout the charger.

At The Repair Bench - Continued on page 25

At The Repair Bench - Continued from page 24

Finally, we come to the battery sensing circuit. This section includes a P-channel enhancement-mode MOSFET, some more resistors, and a 6V Zener diode. The task set for this circuit is to measure and monitor the battery voltage, and then to trigger the series pass 2SA2183 transistor in response to battery conditions. It is this circuit that is the Achilles' heel of this charger.

The MOSFET, which is an extremely static-sensitive device, is installed in such a manner that the user can come into contact with the MOSFET ***source*** terminal quite easily, thus imparting an electrostatic discharge from the user directly into the MOSFET. Such ESD will very easily pierce the insulating oxide layer within the MOSFET, causing immediate failure of that device.

It did not take very long to isolate and identify the MOSFET as the failed component in this situation, circled in red in the **Figure 3** illustration of the charger PCB. Some basic voltage and resistance measurements at various points around the overall circuit was all that it took. When all voltages in the other functional blocks turned out to be as expected, the problem was quickly narrowed down to the state-of-charge monitoring section of the circuit, and then to the MOSFET.

Interestingly enough, this was apparently a problem that became known to the engineers at Yaesu, as the second CD-41 that John left with me used a different part number for the MOSFET, which may or may not be meaningful. However, something that was ***very*** meaningful was the fact that that second CD-41 also had a ***P6KE18A transient voltage suppressor (TVS)*** diode connected across the MOSFET, from the battery sensing contact to the ground contact, for the purpose of ESD protection.

Ultimately, the repair of this charger involved replacement of the failed MOSFET, which I did by installing an IRLML6402TRPBF P-channel enhancement-mode MOSFET in place of the original 2SJ204 type, which is no longer available. The second CD-41 uses an STJ828K device, but I had the 6402 on hand and its specs were right, so I did not even attempt to source the STJ828K. Of course, no proper repair fails to include a fix for the underlying problem, so I made sure to install a P6KE18A diode across the MOSFET, circled in yellow in the **Figure 3** illustration, thus providing the same level of ESD protection that the second CD-41 had from the factory.

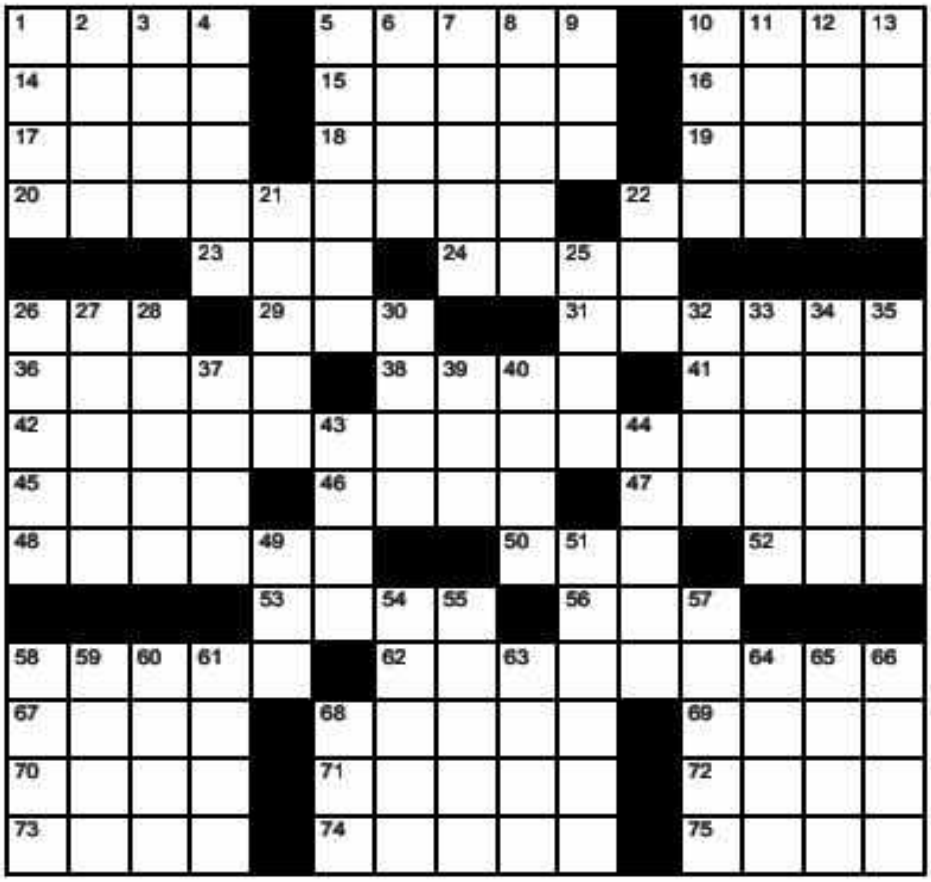
Post-repair, the cradle successfully charges the battery, and the annunciator LED's work as expected, but only to a certain limit, which I attribute to the difference between the original MOSFET used and the replacement device that I installed. While the red LED glows during charging, and blinks or flickers as the battery nears full charge, and the green LED illuminates at the fully charged point, the green LED nonetheless turns off after a certain period of time. From testing that I performed, I believe that this new MOSFET provides the proper charge current, but shuts down the charging circuit completely when the charge state is full, thus turning off the LED. The original MOSFET maintained a "holding" charge current after full charge was reached.

The upshot of this job is that it illustrates how sometimes, failure is ***designed into*** a piece of equipment, and a proper repair will correct for the poor design as well as replace the failed component parts.

See you next month!

by Chris Codella, W2PA 11/17/2009

Signal Makers



Crossword Puzzle courtesy of https://www.w2pa.com/Home/articles/crossword-puzzles

Across

1. Ant. meas.
5. Cousin of 38-across
10. Caucasus region prefix
14. Part of DE, on phone
15. Lid like
16. PW1 maker
17. Part of 23 across
18. Eastern zone-36 prefix
19. NA or SA, e.g.
20. Encoder, in a way
22. Last stage, with 62 across
23. Measuring dev.
24. W5LFL's employer, once
26. SDR part
29. Band booking
31. RX starter
36. Prefix with -band
38. Parasitic array
41. Part of a score, maybe
42. Political pundit?
45. Apple spray
46. Theories
47. Lisbon prefix
48. Seminal radio textbook author
50. Equipment seller
52. Homer's neighbor
53. Eastern zone-28 prefix
56. Dir., for one
58. Dit dah doer
62. See 22 across
67. Tea type
68. Dig, so to speak
69. Eight in some circles
70. HS denizen
71. Part of some joints
72. Dayton digs
73. QSL bureau process
74. Put up, as a crank-up, say
75. Lodges

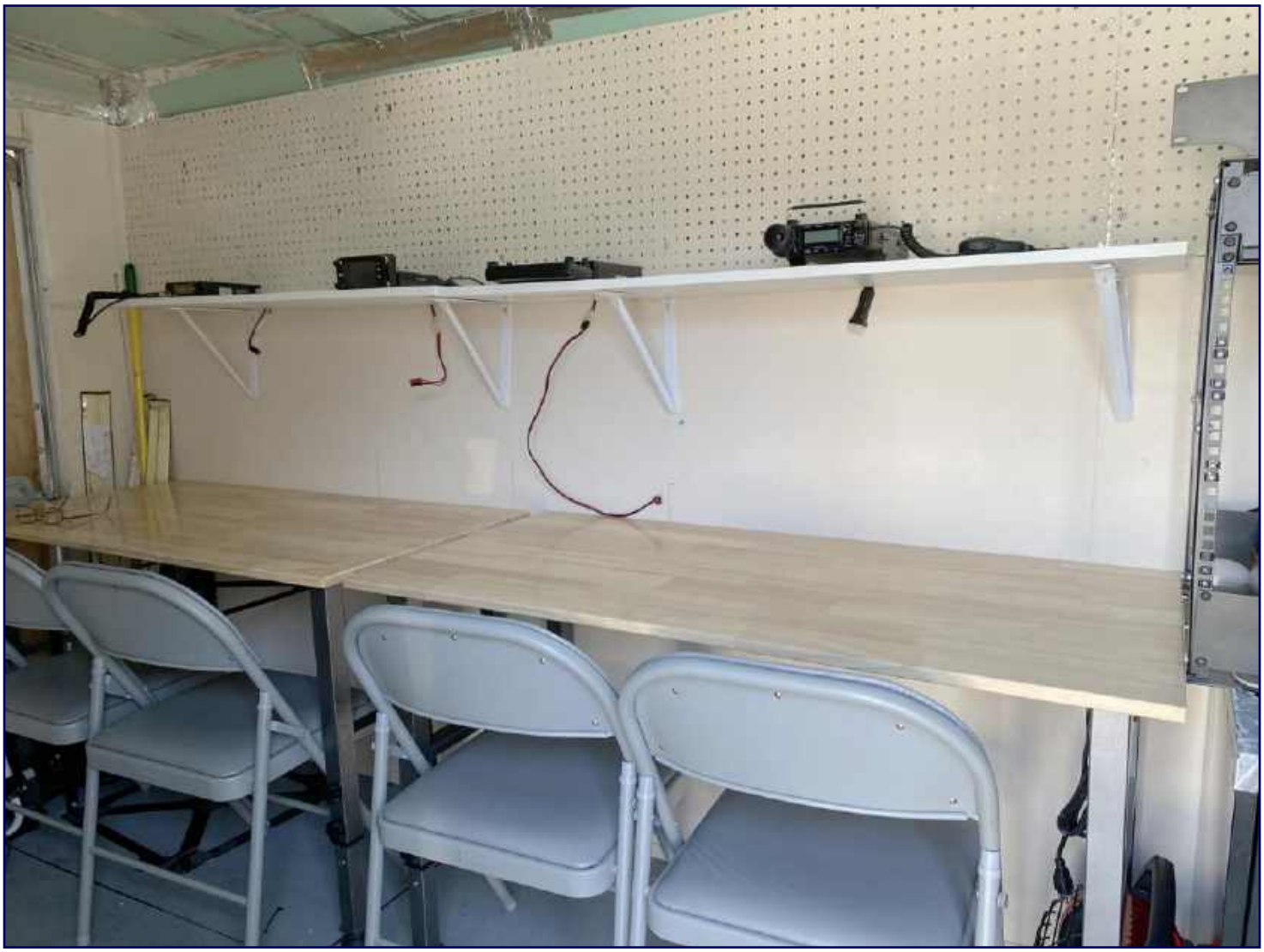
Down

1. DVM predecessor
2. "QSY!"
3. "___ Thing"
4. Q followers
5. JD1 name
6. "Get ___!"
7. It's a gas
8. Probably contains a 41 across
9. W5 sect.
10. KP4 name
11. Harbor vessel
12. Turin prefix
13. Apache or Cheyenne, e.g.
21. Gates' job
22. Hole goal
25. Span's partner
26. Amateur 24 across partner
27. Having two parts
28. RIT button
30. Swindles
32. 90 degrees
33. Illegal lighting?
34. Belfast prefix
35. Cut down
37. School session
39. Ready for firing
40. "Gee!"
43. Kink companion
44. Gut bug
49. MI, MO and MT QP mo.
51. Give in
54. Water walker
55. Bratislava prefix
57. CD followers
58. SB-401, 301, 201 and 101, once
59. EME artifact
60. Y2K part
61. Menu option
63. CPU part, abbr.
64. EP place
65. Take home
66. SM-land rugs
68. Took the cake, say

Call Jenny @ 867-5309 for the crossword answers

Amateur Radio Emergency Services - April 2025
Resources - News - Updates

By Bob Keogh, KD2NEC - kd2nec@qsl.net
Gloucester County Emergency Coordinator



Work in Progress on the American Red Cross Emergency Communications Trailer. Cooper Hospital donated five Amateur Radios, along with their "PodRunner". The radios have all been tested and are in working condition. The next step is to install the antennas and activate the power distribution system.

Karl Frank, W2KBF has assembled a "Formal Message Handling" document to be used by Gloucester County ARES members. There is PDF available for download on the ARES SNJ Section webpage.
Go to : https://gloucestercountyarc.weebly.com/ares-snj-section.html

Also added to the ARES SNJ Section page is the ICS Form 213.PDF

Club Member	DMR ID
W2MMD Clubhouse	**3198604**
Michael Andrescavage, N2ICV	3134044
Lance Appel, KE2UC	3200487
Alex Calabrese, WA2ADS	3100583
Chuck Capasso, WB2PGE	3169781
Matthew Carango, N3QB	3169432
Todd Cecilio, KA2YNT	3169458
Anthony Cerami, N2OAC	3202759
Mark Clark, N3QMJ	3102110
Norm Coltri, K2NRC	3183851
Holden Correia-Fisher, KD2JPV	3104911
Mike Covaleski, N2MMC	3134855
Walter Coward, WX2E	3166863
Bob Demola, KD2GFL	3134319
Doug Dersch, KD2VQA	3193630
Thomas Distelcamp Sr, KC2GYC	3110869
Glenn Dougherty, N2YIO	3161836
Adam Duncan, W3DUN	3202691
Herb Dyer, KT2Y	3134907
Harry Elwell, AD5TT	3128498
Misael Fernandez Jr, KE2EBL	3214756
James Foster, W3JNF	3142117
Karl Frank, W2KBF	3146716
Glen Guenther, KE2BUO	3202079
Melissa Guenther, KE2BWZ	3202496
Deirdre Anne Hebert, AD2GQ (AB1ST)	3133330
Gary Hewitt, N2WHV	3134654
Chuck Lanard, KD2EIB	3134298

Club Member	DMR ID
Gary Mirkin, WA3SVW	3165494
John Murrow, KD2NHK	1134122
John Newman, WB4YLM	3213273
Phil Nunzio, WA3RGY	3134336
John O'Connell, K2QA	3110610
Robert Pantazes, W2ARP	3157208
Sheldon Parker, K2MEN	3214037
Jonathan Pearce, WB2MNF	3163415
Michael Pecorini, K2MRP	3132996
Michael Pentimall, KC3VTF	3203601
John Price III, KD2QYC	3123583
Chris Prioli, AD2CS	3195449
Michael Resnick, N2WOQ	1134013
Frank Romeo, N3PUU	3134935
Len Rust III, W2LJR	3186225
Len Rust IV, K2LJR	3196243
Dave Sheppard, W2PAX	3112666
Cory Sickles, WA3UVV	1142052
James Simeone, KC2AOF	3134848
Stan Slachetka, WA2JRZ	3213904
Court Smith, KD2SPJ	3186243
Jackson Snyder, AI2D	3164371
Rich Subers, W2RHS	3204316
Brett Waller, K2BKW (KC2UXQ)	3134261
Bill Wood, KD2OSJ	3197459
Jim Wright, N2GXJ	3215168
John Zaruba Jr, K2ZA	3134331
New Entries As Of 03/17/2025	

For more information, DMR links, and W2LJR's DMR presentations, go to :
https://gloucestercountyarc.weebly.com/dmr.html

Word to the Wise

Exchange

The information that must be sent, received, and logged by each station participating in a contact. Exchanges may be non-varying, such as your signal report and state (59 WA), or they may contain a fragment of information that changes from contact to contact. An example of a varying exchange is the use of a serial number in each contact.

DMR Configuration Sequence

1. **Obtain and Configure DMR ID :**
   - **https://www.radioid.net**
2. **Download Contact List :**
   - **http://www.dmrcontacts.com**
3. **Identify Repeater or Hotspot :**
   - **https://www.repeaterbook.com**
4. **Define Talk Groups**
   - **Numerical ID**
   - **Text Name**

https://brandmeister.network/?page=talkgroups

5. **Create Channel**
   - **Select Number**
   - **Assign Name**
   - **Select DMR ID**
   - **Assign Frequency**
     - **Transmit**
     - **Receive**
     - **Bandwidth**
     - **Power**
     - **DMR Mode (Simplex/Repeater)**
     - **TX Permit (Channel Free)**
   - **Assign Talk Group**
   - **Assign Color Code**
     - **Agreed Upon with Other Users**
   - **Assign Time Slot**
   - **Agreed Upon with Other Users**
6. **Create Zone**
7. **Add Channels to Zones**
8. **Configure Features**
9. **Upload Code Plug**
10. **Upload Contact List**

If you recently changed your callsign, contact idteam@dmr-marc.net to have your DMR ID transferred to your new callsign.

ARES Resources (Updated as of November 2024)

ARRL ARES Registration Form : https://bit.ly/3Ae2pCf
Download the ARES Manual [PDF] : https://bit.ly/3iUhJLQ
ARES Field Resources Manual [PDF] : https://bit.ly/3QT4PtY
ARES Standardized Training Plan Task Book July 2024 Ver. 3.0 [Fillable PDF] : https://bit.ly/4dToEes
ARES Standardized Training Plan Task Book July 2024 [Word] : https://bit.ly/4heLXSU
ARRL ARES Plan July 2024 : https://bit.ly/3Uf8gyf
ARES Group Registration : http://bit.ly/3XodGpX
ARRL Emergency Communications Training : http://bit.ly/3J2gMMf
FEMA 2023 National Preparedness Report : https://bit.ly/3YrPWnY
Southern New Jersey Section Emergency Operations Plan 2023.PDF : https://bit.ly/3YqMdHb
ARRL ARES Monthly Newsletters : https://bit.ly/408OV5d

The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an amateur radio program, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable but is not a requirement for membership.

If you are interested in learning more about the Gloucester County ARES Program or becoming an ARES member, please contact Bob Keogh (KD2NEC@QSL.NET)

How Discord Enhances Collaboration For The Gloucester County Amateur Radio Club

By Jon Pearce, WB2MNF

The Gloucester County Amateur Radio Club (GCARC) has embraced Discord as a powerful tool for fostering communication and collaboration among its members. Discord, originally designed for gamers, has evolved into a versatile platform used by diverse communities - including hobbyists, professionals, and enthusiasts like amateur radio operators - to connect, share ideas, and organize activities. For GCARC members, Discord provides a dynamic space to engage with fellow radio enthusiasts across a range of specialized interests.

At its core, Discord is a free, cloud-based communication platform that combines text, voice, and video chat features. It operates through "servers," which are customizable hubs where communities gather. The GCARC Discord server is structured with multiple channels, each dedicated to specific topics such as Meshtastic, Winlink, EME (Earth-Moon-Earth communication), 3D printing, ballooning, and satellites. These channels allow members to dive deep into their areas of interest, share resources, troubleshoot problems, and exchange knowledge in real time. Beyond the existing channels, members can propose additional topics like DXing, antennas, or other emerging interests, making the server a living, adaptable space.

This structure creates exciting opportunities for forming special interest groups within the Club. For instance, a member passionate about Meshtastic - a mesh networking protocol popular among radio hobbyists - can connect with others to swap tips, discuss hardware, or plan projects. Similarly, the 3D printing channel might spark a collaborative effort to design custom radio accessories. By facilitating these niche discussions, Discord helps members gather valuable insights and build a repository of shared expertise.

Discord's features enhance its utility for a group like GCARC. Text channels support threaded conversations, file sharing (e.g., PDFs, images, or design files), and searchable message histories, ensuring that important information isn't lost. Voice channels enable real-time discussions or presentations, while video capabilities could support virtual show-and-tell sessions for projects.

For GCARC, the Discord server does more than just facilitate casual chats; it highlights areas of interest that could shape future Club activities. High engagement in the Winlink channel, for example, might signal the need for a Tech Saturday workshop on email-over-radio systems. Likewise, enthusiasm in the EME channel could inspire a General Membership Meeting presentation on moonbounce techniques. This feedback loop helps the Club stay responsive to members' passions and needs.

Ready to join the conversation? GCARC members can jump into the Discord server using this link : **https://discord.gg/rkgfxnKu6e**. Whether you're into satellites or 3D printing, there's a channel waiting for you to explore, connect, and collaborate.

Word to the Wise

Big Gun and Little Pistol

There are no hard and fast definitions of either of these terms. Big Gun generally means that the station is capable of producing big signals and being able to maintain high run rates despite crowded band conditions. Big Gun also comes with the implication of tall towers, extensive antennas, amplifiers, and great radio locations. Little Pistols are stations that, despite missing one or many of the physical components of a Big Gun station, make up for what they don't have with strong operating skills and on-the-air "chutzpah."

2024-2028 Element 4 Amateur Extra Class License Question Quiz

This month we continue with Subelement E2 Operating Procedures (5 exam questions - 5 groups).
(Answers on Last Page)

E2D01
Which of the following digital modes is designed for meteor scatter communications?
A. WSPR
B. MSK144
C. Hellschreiber
D. APRS

E2D02
What information replaces signal-to-noise ratio when using the FT8 or FT4 modes in a VHF contest?
A. RST report
B. State abbreviation
C. Serial number
D. Grid square

E2D03
Which of the following digital modes is designed for EME communications?
A. MSK144
B. PACTOR III
C. WSPR
D. Q65

E2D04
What technology is used for real-time tracking of balloons carrying amateur radio transmitters?
A. FT8
B. Bandwidth compressed LORAN
C. APRS
D. PACTOR III

E2D05
What is the characteristic of the JT65 mode?
A. Uses only a 65 Hz bandwidth
B. Decodes signals with a very low signal-to-noise ratio
C. Symbol rate is 65 baud
D. Permits fast-scan TV transmissions over narrow bandwidth

E2D06
Which of the following is a method for establishing EME contacts?
A. Time-synchronous transmissions alternating between stations
B. Storing and forwarding digital messages
C. Judging optimum transmission times by monitoring beacons reflected from the moon
D. High-speed CW identification to avoid fading

Element 4 Amateur Extra Class Quiz - Continued on page 32

Element 4 Amateur Extra Class Quiz - Continued from page 31

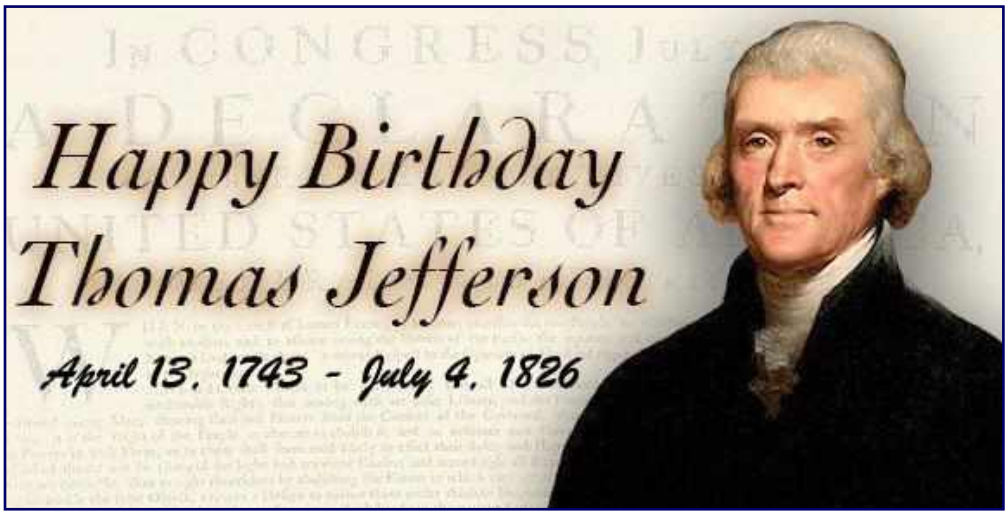
E2D07
What digital protocol is used by APRS?
A. PACTOR
B. QAM
C. AX.25
D. AMTOR

E2D08
What type of packet frame is used to transmit APRS beacon data?
A. Acknowledgement
B. Burst
C. Unnumbered Information
D. Connect

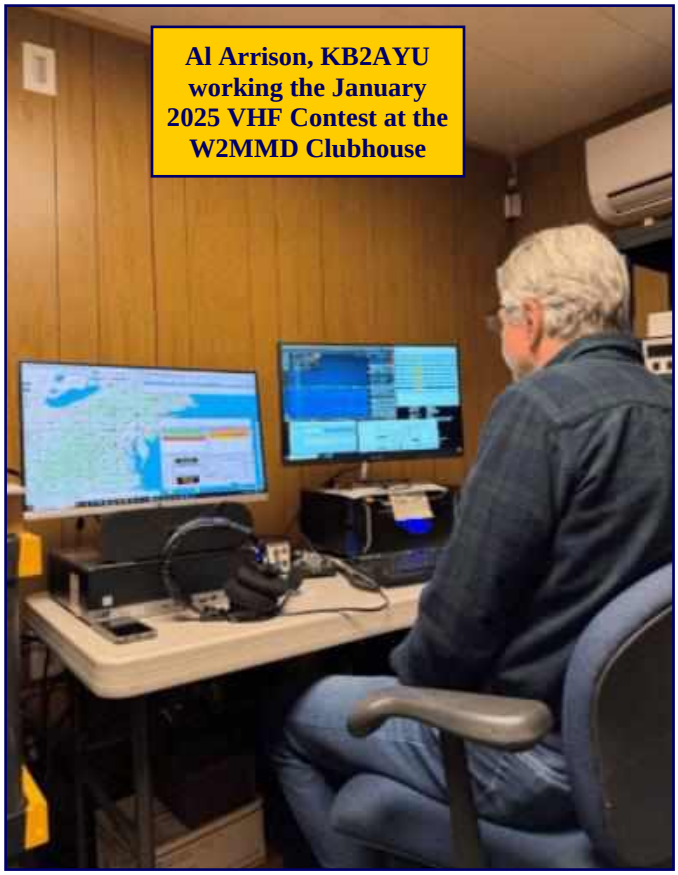
E2D09
What type of modulation is used by JT65?
A. Multitone AFSK
B. PSK
C. RTTY
D. QAM

E2D10
What does the packet path WIDE3-1 designate?
A. Three stations are allowed on frequency, one transmitting at a time
B. Three subcarriers are permitted, subcarrier one is being used
C. Three digipeater hops are requested with one remaining
D. Three internet gateway stations may receive one transmission

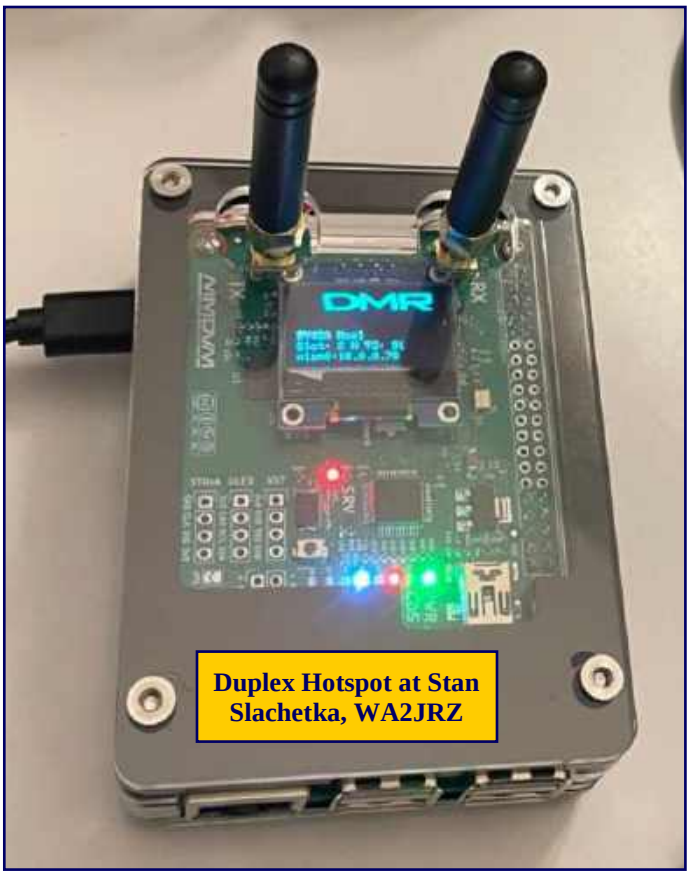
E2D11
How do APRS stations relay data?
A. By packet ACK/NAK relay
B. By C4FM repeaters
C. By DMR repeaters
D. By packet digipeaters



Packed house at the W2MMD Clubhouse for the March 1, 2025 CHIRP Programming Class

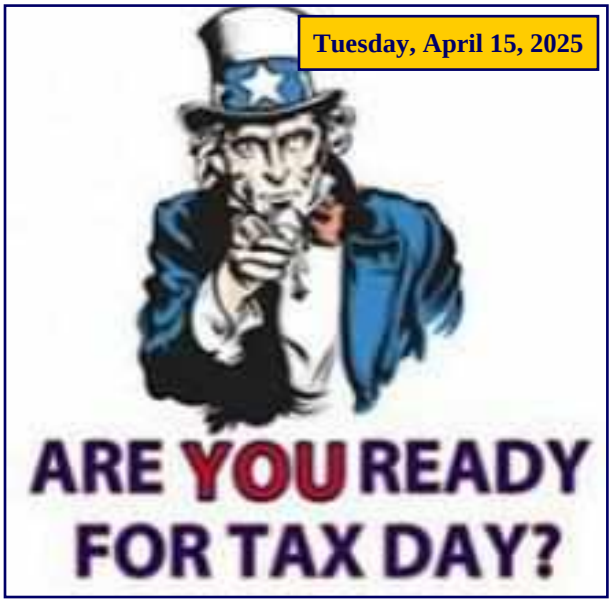


Al Arrison, KB2AYU working the January 2025 VHF Contest at the W2MMD Clubhouse

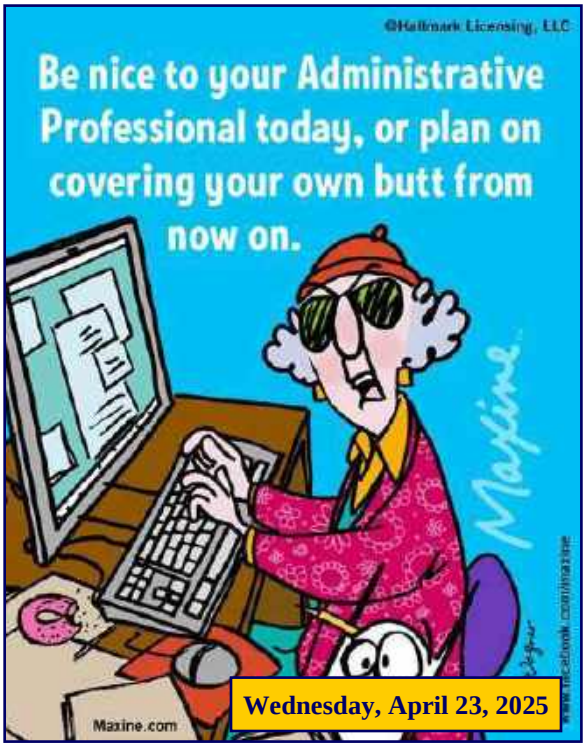


Duplex Hotspot at Stan Slachetka, WA2JRZ

New 72 Foot Tower
New 89 Foot Tower


Tuesday, April 15, 2025
ARE YOU READY
FOR TAX DAY?

New Clubhouse Weather Station


©Hallmark Licensing, LLC
Be nice to your Administrative Professional today, or plan on covering your own butt from now on.
Maxine
Maxine.com
Wednesday, April 23, 2025

Regional Skywarn Websites For On-Line And In-Person Training Classes

Philadelphia/Mt Holly Skywarn : www.weather.gov/phi/skywarn
State College, PA Skywarn : www.weather.gov/ctp/skywarn
Pittsburgh, PA Skywarn : www.weather.gov/pbz/skywarn

State College, PA Skywarn Training Class : Virtual
Monday, March 31, 2025 : 1800 - 2000 Hours
Advanced Spotter Training - Radar
To Register, Go To :
https://register.gotowebinar.com/register/8416014288291547742

Mt Holly Skywarn Training Class : Basic Spotter Training Webinar
Thursday, April 10, 2025 : 1900 - 2100 Hours
To Register, Go To : https://bit.ly/4kLfky4

Weather Information Nets & Frequencies

Hurricane Watch Net : www.hwn.org

- **Day Time : 14.325 MHz**
- **Night Time : 7.268 MHz**
- **Information : 14.300 MHz**

Local SKYWARN Frequencies :

- **Atlantic County : K2BR, 146.745 MHz (-) 146.2 Hz**
  - ◊ **Net Every Monday @ 1900 Hours**
- **Camden County : K2EOC, 146.895 MHz (-) 91.5 Hz**
  - ◊ **Net Every Thursday @ 2030 Hours**
- **Cumberland County : KE2CK, 146.805 MHz, (-) 118.8 Hz**
  - ◊ **Net Every Monday @ 1930 Hours**
- **Gloucester County : W2MMD, 147.180 MHz (+) 131.8 Hz**
  - ◊ **Net Every Sunday @ 1930 Hours**
- **Salem County : N2KEJ, 146.625 MHz (-) 131.8 Hz**

Club Merchandise from the K2ZA Workshop
Contact John Zaruba Jr, K2ZA at k2za@icloud.com
Go To : https://gloucestercountyarc.weebly.com/club-merchandise.html

Jersey String Band Update
By Glenn Dougherty, N2YIO

The Band started their 2025 Parade season on March 4th in Gloucester City with the Gloucester City St. Patrick's Day Parade. The next week they were supposed to head to New Haven CT, but due to circumstances that trip was canceled but we replaced that parade with one in Baltimore MD.

On March 22nd the Band will remember the life of Cliff Nolte, 60 year Mummer and member of the Broomall String Band and a Charter Member of the Jersey String Band, with a ceremony at the Gloucester County Veterans Cemetery. We will continue our parades on April 12th in Ocean City for the Annual Do Dah Parade. Dog owners dress up their Basset Hounds and parade them along the Boardwalk. If you have never been to this event it is something to see.

Our Captain is working on more parades for the rest of the year. We have picked our theme concept for 2026. We will be doing a 50's theme. We will be marching 14th in the parade on New Years Day 2026.

That is all for this month. I am still recuperating from my fall and fractured hip, but hope to be back marshalling with the band very soon.

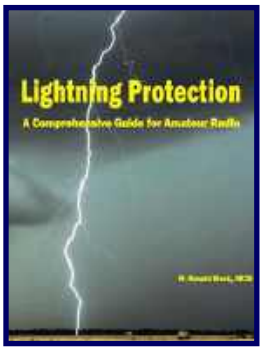
Full Pink Moon - Saturday, April 12, 2025 @ 2022 Hours

This Moon heralded the appearance of the "moss pink" (Phlox subulata), also called wild ground phlox or creeping phlox - one of the first spring wildflowers. With spring thaws come the Algonquin Breaking Ice Moon and the Dakota Moon When the Streams are Again Navigable. When spring growth appears, so does the Budding Moon of Plants and Shrubs (Tlingit) and Moon of the Red Grass Appearing (Oglala). Animals returning to the area inspired the Lakota name Moon When the Ducks Come Back. Certain Dakota peoples chose the name Moon When the Geese Lay Eggs.

Other names are Broken Snowshoe Moon (Anishinaabe), Frog Moon (Cree), and Sugar Maker Moon (Western Abenaki). Appearing either in April or May, Sucker Moon (Anishinaabe) refers to a time to harvest sucker fish, which return to streams or lake shallows to spawn. According to legend, now is the time when this fish comes back from the spirit world to purify bodies of water and the creatures living in them. (This name may also be applied to the February Moon, to honor the sacrifice of the sucker fish in order to feed the Anishinaabe peoples, helping them to survive the winter.).

Old Farmer's Almanac - www.almanac.com

Lightning Protection :
A Comprehensive Guide for Amateur Radio
Author : W. Ronald Block, NR2B
Contact : ron@wrblock.com
Website : www.wrblock.com



Gloucester County Amateur Radio Club
General Membership Meeting Minutes
Wednesday, March 5, 2025

Meeting opened @ 1900 Hours by President Jon Pearce, WB2MNF with the Pledge of Allegiance to the Flag

Attendance :

- **In-person : 31**
- **Via Zoom : 21**

Visitors : Steve Anderson W1EMI, Guest Speaker (ZOOM)

New Members :

- **Greg Anderson KE2FAS, Cherry Hill, NJ**
- **Edward Champion N2RO, Franklinville, NJ (Returning Member)**
- **Richard Danner KE2FES, Mullica Hill, NJ**
- **Misael Fernandez Jr. KE2EBL, Vineland, NJ**
- **Charles Jay Fox K2FOX, Malaga, NJ (Returning Member)**
- **Robert McMeekin KE2FEG, Haddon Township, NJ**
- **John Newman WB4YLM, Millville, NJ**
- **Michael Talerico, Mullica Hill, NJ**
- **Phaon Robert Trexler III, KB2ACE, Morton, PA**

Announcements :
Dues are due, after 3/31 non-renewals will be dropped from the Club roster.

Upcoming Clubhouse Events :

- Tech Saturday Forum 03/08 @ 9AM : Hands-on with DMR
- License Testing Thursday 03/13 @ 7PM
- Board of Director's Meeting 03/19 @ 7PM
- Dinner at the Clubhouse 03/26 @ 6PM

Member current activities :

- **Chris Prioli AD2CS** reported on a news piece describing the use of WSPR to refine the flight path of missing flight MH270.

Business Meeting :

Minutes of February 2025 business meeting as published in CrossTalk were approved by voice vote of members present.

Treasurer's Report :

- **2025 Year to Date Income and Expenses**
  - ◊ **Income : $5460.26**
  - ◊ **Expense : $704.95**
  - ◊ **Net : $4809.27**

March 2025 General Membership Meeting Minutes - Continued on page 38

March 2025 General Membership Meeting Minutes - Continued from page 37

Gloucester County Amateur Radio Foundation :

- Report : **John O'Connell K2QA** reported on the Foundation account balances.

Clubhouse Report :

- Report : **Al Arrison KB2AYU** showed slides of the new VHF/UHF towers. **John O'Connell K2QA** discussed the server rack reconfiguration.

Future Programs :

- Report :
  - ◊ April 2, 2025 "Beginner's Guide to VHF - **Anthony Luscre K8ZT**"
  - ◊ May 7, 2025 "Introduction to the VNA and the NanoVNA - **Alan Wolke W2AEW**"
  - ◊ June 4, 2025 "3D Printing in the Ham Shack - **Richard Gopstein KD2CQ**"
  - ◊ July 2, 2025 "Pizza Night"

DX and Contests :

- Report : **Tony Starr K3TS** provided his contest picks for March 2025 via Zoom, details in CrossTalk.

Public Service :

- Report : No report

Education Committee :

- Report : **Chris Prioli AD2CS** discussed the recent CHIRP class. Next License class will start 3/31/25.

Technical Committee :

- Report : **Jon Pearce WB2MNF** discussed a new weather station project.

Old Business :

- Previous GM and BoD minutes approved as published in CrossTalk by voice vote of members present.
- Treasurer's report approved by voice vote of members present.
- **Ron Block NR2B** read the proposed constitution changes which were approved by voice vote of members present.

New Business :

- **Jim Wright N2GXJ** reported on the recent fox hunt.
- **Ron Block NR2B** provided an update on preparations for Hamfest 2025.

Presentation :

- "ARRL's RFI Program" by **Steve Anderson W1EMI**

Meeting adjourned @ 1945 Hours

Respectfully submitted,
John Zaruba K2ZA
Recording Secretary

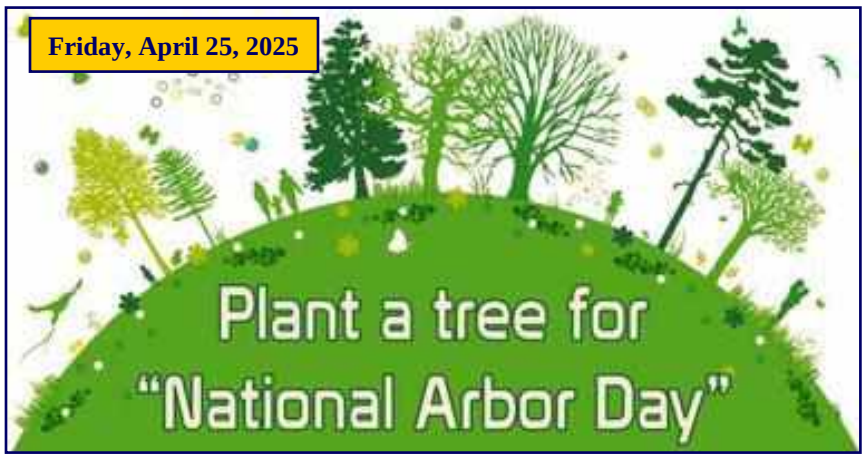
Announcing HOTA : A New Way To Enjoy Portable Operation!

By Tony Starr, K3TS

The newly formed HOTA Amateur Radio Association is proud to announce the formation of HOTA, or HOAs On The Air, a new kind of competitive amateur radio activity and award. The object is to work as many HOAs as possible, for the cumulative HOTA Award. The basic HOTA activation will be for hams who live in an HOA, setting up in their own courtyard or balcony, in an HOA that they are a member of. Bonus points will be issued for setting up in common or public areas, or for setting up in the common areas of HOAs that they are NOT a member of!

This can be done POTA-style, in parking lots, playgrounds, or other common areas, to promote amateur radio activity from within HOA-controlled areas. See the HOTA website for details. The HOTA Super Bonus with apply to activation from an HOA that that has been historically hostile to ham radio operations (documentation of proof required). Affiliated Club competition using **HOTA Roaming Stations (see the photo below)** will garner additional bonus points. These special portable stations will be operated by affiliated clubs, starting in the First Annual HOTA QSO Party (HQP), which kicks off on **April 1st** of this year.

For more information on how your club can join in the fun, including how to build your own HOTA Roaming Station, visit the HQP web site, at **www.HQPgoesuptheHOA.com**. Remember, this is intended to be an annual **April First** event. Get your portable station and antennas ready now, and don't miss out on the fun!



Gloucester County Amateur Radio Club
Board of Directors Meeting Minutes
Wednesday, March 19, 2025

Meeting opened @ 1900 Hours by President Jonathan Pearce, WB2MNF

Attendance :

- **President Jon Pearce, WB2MNF : Present**
- **Vice President Ron Block, NR2B : Present**
- **Treasurer John O'Connell, K2QA : Present**
- **Recording Secretary John Zaruba Jr, K2ZA : Present**
- **Corresponding Secretary Mike Resnick, N2WOQ : Present**
- **Director (2023-2025) Chris Prioli, AD2CS : Present**
- **Director (2023-2025) James Wright, N2GXJ : Present**
- **Director (2024-2026) Al Arrison, KB2AYU : Present**
- **Director (2024-2026) Bill Price, NJ2S : Present**
- **Director (2025-2027) Jeffrey Garth, WB2ZBN : Present**
- **Director (2025-2027) Frank Romeo, N3PUU : Present**
- Trustee (2022-2025) Charles Lanard, KD2EIB :
- Trustee (2023-2026) Sheldon Parker, K2MEN :
- Trustee (2024-2027) Len Rust, W2LJR :
- **Trustee (2025-2028) Earl Moore, KC2NCH : Present**
- **Member Bruce Canino, KD2LBU : Present**

New Member Applications :

- **Bryan Peter Eveland KM4SJS, National Park, NJ**
- **Christopher M. Grabosky KE2FIK, Delran, NJ**

Member Upgrades :

- **Robert Brown, AD2RB (ex. KD2YUG), Vanity callsign, Upgrade to Amateur Extra Class**
- **Robert McMeekin, WA2CJI (ex. KE2FEG), Vanity callsign**
- **Angela Metzger, KE2DRJ, Upgrade to General Class**

Treasurer's Report :

- Income : $6,024.79
- Expense : $1,053.56
- Net : $5,151.23

Detailed financial statements are available for member review upon request. Treasurer's report approved by voice vote of club officers present.

Committees :

- **Clubhouse : Al Arrison KB2AYU** reported on tower condition and maintenance issues.
- **Hamfest : Ron Block NR2B** discussed Hamfest seminar topics. Also discussed documenting best practices for future chairpersons.

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- **Technical :**
  - **Jon Pearce WB2MNF** discussed recent DMR trainings.
  - May 3rd Tech Saturday will be the QST dummy load/wattmeter build project.
- **Education :**
  - **Jon Pearce WB2MNF** reported on school STEM activities.
  - **Chris Prioli AD2CS** reported on upcoming licensing classes.
  - **John Zaruba Jr K2ZA** discussed a possible Basic CW class.
- **Repeaters : Frank Romeo N3PUU** reported on progress with the DMR conversion of the Glassboro 440.10625 MHz repeater. New interface board on order.
- **Field Day :**
  - **Jim Wright N2GXJ** provided a short presentation on Field Day preparations.
  - **Jon Pearce WB2MNF** discussed making the Tech Saturday before Field Day an introductory session for new operators.
  - Discussed a motion to be presented to the general membership regarding additional band pass filters.
- **Membership :** Discussion of membership retention and renewals.
- **Foxhunt Report : Jim Wright N2GXJ** reported on a potential May Fox Hunt.
- **Club Nets :**
  - 10 meter net has been retired.
  - 40 meter has a new frequency : 7.290 MHz
  - 2 meter nets :
    - Tuesday : Average 10 check ins
    - Thursday : Average 9 check ins

Old Business :

Motion to approve previous minutes approved by voice vote of club officers present.

The Club president nominated and the Board ratified the appointment of Chris Prioli AD2CS as Volunteer Examiner Team Coordinator.

New Business :

- Discussion of Club DXCC list issues.
- **Jim Wright N2GXJ** inquired about a Club summer picnic.

Meeting adjourned @ 2038 Hours

Respectfully Submitted,
John Zaruba K2ZA
Recording Secretary

W2MMD Clubhouse Test & Repair Bench Equipment and Supplies
Another FREE Clubhouse Resource Available To All Club Members

A Special Thank You to Chris AD2CS for donating the equipment and organizing these test benches

- YiHua 948 11-in-1 Solder Station
- Universal Screwdriver Set
- PanaVise PCB vise with full tilt and rotate on parts bin base
- 500 Watt Dummy Load
- 100 Watt Dummy Load
- Heathkit HD-1234 6-position Coax Switch with RG-213 jumpers
- Hook-up Wire :
  - 18 AWG stranded
  - 22 AWG solid and stranded
  - 24 AWG solid and stranded
- Bird 4304A Thruline Directional Wattmeter
- CMS BE-01 Battery Eliminator 1A/1.5-15V Power Supply
- 12 AWG Red/Black Dual Stranded ZIP Wire
- Simpson 260 Series 5 Analog Multimeter
- CMS ESR-01 Equivalent Series Resistance Meter
- Elenco DT-100 Diode & Transistor Tester
- TekPower TP50SW 50A/13.8V Power Supply
- Elenco XP-720 12.6VAC/5VDC/1.5-15VDC 3A/1A Power Supply
- RSR Electronix Express RSR-3040 15VAC/5VD/1.5-15VDC 3A/1A Power Supply
- BK Precision 1803D Frequency Counter
- KKmoon MHS-5225 Digital Arbitrary Waveform Signal Generator
- Exact 121 Analog Signal Generator
- Greenlee DM-510A Handheld Digital Multimeter
- HP 34410A Benchtop Digital Multimeter
- BK Precision 1655 Variable isolated AC Supply
- CMS Dim Bulb Current Limiter - 100 Watt
- CMS BDST-01 Signal Tracer
- CMS CRTT-01 Gas-charged Voltage Regulator Tube Tester
- Conar 224 Tube Tester
- GW LCR-814 LCR Meter
- Siglent SDS-1102CML+ Digital Storage Oscilloscope
- DX Engineering Coaxial Cable Gripper and Stripper (RG-8U / RG-213)
- DX Engineering Coaxial Cable Cutter, Trimmer, and Crimper (RG-8U / RG-213)
- DX Engineering RG-8X Die Set for Coaxial Cable Crimper
- Adjustable Wrench Set for Slotted/Recessed Round Nuts
- Speedwox Miniature Box Wrench Sets, Metric and SAE
- 69238 Nut Driver Set, Metric
- 69239 Nut Driver Set, SAE
- Velleman K-8115 Universal Component Tester
- Anderson Powerpole® Connector Assortment
- Anderson Powerpole® Crimping Tool
- Heat Shrink Tube Assortment, cut lengths
- Ring Terminal Assortment
- Alignment Tool Set
- Craftsman Wire Cutter/Crimper
- Craftsman 6-piece Pliers Set
- Laptop PC
- Programming Cable Sets (2)
- Test Lead Set
- Oscilloscope Probe Set

PCB Creation Using ExpressPCB

By Chris Prioli, AD2CS - chris@ad2cs.com - www.ad2cs.com

As many of my long-time readers know, my preferred schematic drawing software is ***ExpressSchematic***, and my preferred printed circuit board **(PCB)** design software is ***ExpressPCB***. These two software packages are parts of a software suite known as ***ExpressPCB***. They were produced as a means of encouraging users to purchase their manufactured PCB's through ***ExpressPCB, LLC***, the parent company responsible for the software. The idea is that they give us the software free of charge. The software writes output files in proprietary formats that are not readily convertible to any industry-standard PCB manufacturing source files. As a result, users end up having to go back to the company to order the boards, at which time the company will also provide the user, upon request, with a copy of an industry-standard file set for the user's records. More about all of this later.

At present, the software is available in two different basic versions, ***ExpressPCB Classic*** and ***ExpressPCB Plus***. The ***Plus*** version has some definite advantages in that there are some newer features that make the board design a bit more elegant than does the ***Classic*** version. Although I have both versions installed on my PC's, I tend to stick to the ***Classic*** version for several reasons :

1. I am intimately familiar with it and have developed work-arounds for many of the shortcomings of the earlier version
2. I have an ***extensive*** library of custom component and device definitions and footprints that I have already developed
3. Up to now, I have used an outside service to convert the ***Express PCB .PCB*** files to industry-standard board-production file sets, a service that is available only for older format of the files produced by the ***Classic*** version

If you choose to use the ***Classic*** version of ***ExpressPCB***, the problem of converting the ***ExpressPCB .PCB (Classic)*** data files to an industry-standard file set is no longer an obstacle. The industry-standard file format to which I refer here is the ***Gerber RS-274X format***. This is a file format that is understood and accepted by virtually any PCB manufacturing house, and is actually a collection of individual files, each of which defines some specific aspect of the PCB design. Typically, the file set is uploaded to the board production house as a ***.ZIP*** file that contains all of the separate definition files.

Gerber filenames, by definition, are appended the filename extension ***.GB*** or ***.GBR***. However, some other filename extensions are often used as a means of identifying the contents of the specific files in the file set. A complete Gerber RS-274X file set can include any and/or all of the following individual definition files :

- .APR - Aperture File
- .APT - Aperture File
- .EXTREP - Extension Report of Gerber Files
- .REP - Report of Individual Layer Used Aperture List
- .RUL - DRC Rules
- .GKO - Keep-Out Layer
- .GTO - Top Overlay
- .GBO - Bottom Overlay
- .GPT - Pad Master Top
- .GPB - Pad Master Bottom
- .GTS - Top Solder
- .GBS - Bottom Solder
- .GTL - Top Layer
- .GBL - Bottom Layer
- .GTP - Top Paste
- .GBP - Bottom Paste
- .G1, .G2, etc. - Mid-layer 1, 2, etc.
- .GP1, .GP2, etc. - Internal Plane Layer 1, 2, etc.
- .P01, .P02, etc. - Gerber Panels
- .GM1, .GM2, etc. - Mechanical Layer 1, 2, etc.
- .GD1, .GD2, etc. - Drill Drawing
- .GG1, .GG2, etc. - Drill Guide
- .DRL - Drill Data
- .TXT - Drill Position
- .DRR - Drill Tool Size
- .LDP - Layer Pairs Export File for PCB

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PCB Creation Using ExpressPCB - Continued from page 43

It should be noted that ***most*** Gerber file sets are not nearly so complete. A typical Gerber file set for one of my double-sided boards might include the ***.GBL, .GBS, .GM1, .GTL, .GTO, .GTS***, and ***.TXT*** files.

I have recently been fooling around with ways and means of making valid Gerber file sets myself, without having to send the source ***.PCB*** file out to be converted. The long-term idea is to be able to make my own Gerber files for the newer ***.RRB*** file format from the ***ExpressPCB Plus*** version, as the day will be here sooner than I like when all support for the ***Classic*** version is dropped. ***ExpressPCB LLC*** has already announced that they will discontinue all ***Classic*** support and production of boards from the ***Classic*** file format when ***Microsoft*** drops support for the older application software running under the ***Windows***® operating system. As a result, I decided that I will have to start using the ***Plus*** version and updating all of my component definition and footprints to the new format as well.

That brings me to the topic of this article… how to convert the ***ExpressPCB*** data files into a Gerber file set that will be accepted by the board production house of your choice. As luck would have it, I am not the only person dealing with this problem. However, I ***am*** more persistent than some others may be when it comes to seeking a solution. As such, I have found a great solution that seems to work very nicely. It involves installing a ***perl*** engine on the PC, and also installing a specific PDF print driver… but I am getting ahead of myself a little bit.

It turns out that there is a ***perl*** script written to parse the contents of ***.PDF*** files and then to convert those contents into a Gerber file set. The script is called ***pdf2gerb.pl*** and it is available for download at : **http://swannman.github.io/pdf2gerb**, where you should scroll down the page and click on the download link found there. The file retrieved will include the script and its necessary configuration file as well as some documentation and reference data and some sample files. Unzip the retrieved file to a convenient folder, and then browse into the ***/doc*** folder to find the ***pdf2gerb.pdf*** file, which will provide instructions and some resource links.

As already mentioned, a ***perl*** environment will be necessary in which to run the ***perl*** utility and script. A good choice for ***Windows***® is **Strawberry Perl (http://www.strawberryperl.com)**, which will install cleanly and easily into ***Windows***® ***10*** or ***Windows***® ***11***. Installing the ***Strawberry Perl*** package will append the ***perl*** folders to the default ***PATH*** environment variable, so you will be all set to run the app from within a command window in whatever folder you want.

Next up is the ***.PDF*** print driver. I have a licensed copy of Adobe Acrobat 11 on my PC, so naturally I tried using that as my print driver. I ended up with insurmountable errors in my output Gerber files. Next, I tried the ***Windows***® native ***.PDF*** driver, with similar results. After that, I tried a stand-alone ***.PDF*** driver that I have used for years, called ***PDF Factory***. Unfortunately, that also produced erroneous outputs. Finally, I followed the advice found in the ***pdf2gerb.pdf*** instructions and downloaded another driver called ***PDF Creator***. The instructions reference version 1.3.2, but the most recent version is 5.1.2, which is what I downloaded.

It can be found at : **https://download.pdfforge.org/download/pdfcreator/PDFCreator-stable**. When you install this driver, decline all offers for additional software and add-ons - they are not needed.

After installation of the ***perl*** software and the driver, the next step is to get your source ***.PDF*** files for conversion. This is done by opening up your PCB design in ***ExpressPCB*** and then printing three files, using the ***PDF Creator*** print driver. In the ***ExpressPCB File > Print*** dialog **(Figure 1)**, first select the option to print only the top copper layer, naming that file ***xxxx-top.pdf*** where the ***xxxx*** is a text string of your choice. Next, repeat the print task, this time printing only the bottom copper layer and naming that file ***xxxx-bottom.pdf***. Finally, print another file, this time selecting only the top silkscreen layer and naming the output file ***xxxx-silk.pdf***. When printing these files, select only the layers instructed, and print the PCB at actual size, without any page footers or other details, using the default color set defined in ***ExpressPCB***.

PCB Creation Using ExpressPCB - Continued on page 45

Create a folder off the root folder of the hard disk drive of the PC, giving that folder a name that you find convenient. Next, copy the following files into that folder :

- **pdf2gerb.pl**
- **pdf2gerb_cfg.pm**
- **xxxx-top.pdf**
- **xxxx-bottom.pdf**
- **xxxx-silk.pdf**

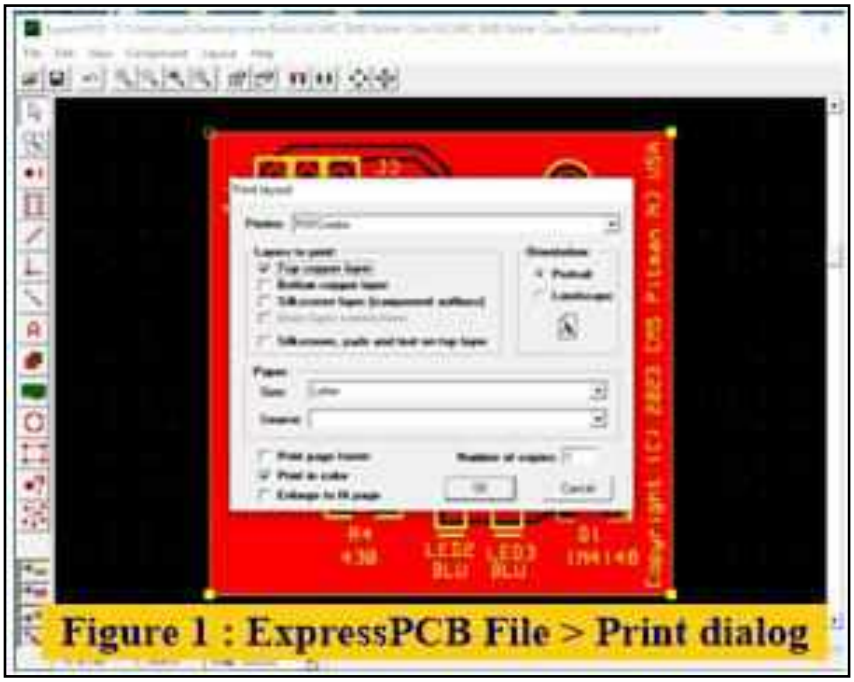

Figure 1 : ExpressPCB File > Print dialog

Remember that the ***xxxx*** part of those last three filenames are the text strings that you used in your ***.PDF*** file creations.

Conversion of the three ***.PDF*** files into a Gerber file set involves running the ***perl*** script, using the three filenames as command-line arguments. Note that the three filenames must be listed as arguments in the correct sequence of ***top, bottom***, and then ***silk***. Launch a command window by right-clicking the ***Windows***® icon in the lower-left corner of the screen, selecting the ***Run*** command, and then typing in ***CMD*** in the ***Run*** dialog box. Click ***OK*** to launch the command window.

Figure 2 : Perl Script Command Line Example

In that command window, use the ***CD*** command to change to the folder into which you copied the files earlier, ***e.g., "CD \myfolder"*** followed by pressing the ***Enter*** key, where the quote marks are omitted and the ***myfolder*** string is replaced by the name of the folder that you created off the root. Your command line prompt will then change to read ***C:\myfolder>.*** You are now ready to run the ***perl*** script. That is accomplished by typing the following command at the command prompt and pressing ***Enter***… ***perl pdf2gerb.pl xxxx-top.pdf xxxx-bottom.pdf xxxx.silk.pdf*** **(Figure 2)**, of course replacing the ***xxxx*** with the text string that you used to name your .***PDF*** files.

If all was done correctly, the script will run, parsing the ***.PDF*** files and writing a series of ***.GBR*** files in that same folder **(Figure 3).** Each of the new files will have a string of text inside parentheses at the end of the filename, right before the extension. These text strings will coincide with some of the Gerber file types listed earlier.

Now it is time to check out your new files and make sure that they match up to your original PCB design file. To do this, you will need a Gerber file viewer utility. I recommend the ***GERBV*** utility, which can be downloaded from **http://gerbv.gpleda.org/index.html**.

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Scroll down the page to find the ***GERBV*** link, and then click the link. This Gerber viewer does not need to be installed. Simply copy the ***GERBV.EXE*** file to a convenient folder, ***e.g.,*** the same folder where the other files were copied, and then make a shortcut to that file in a convenient location.

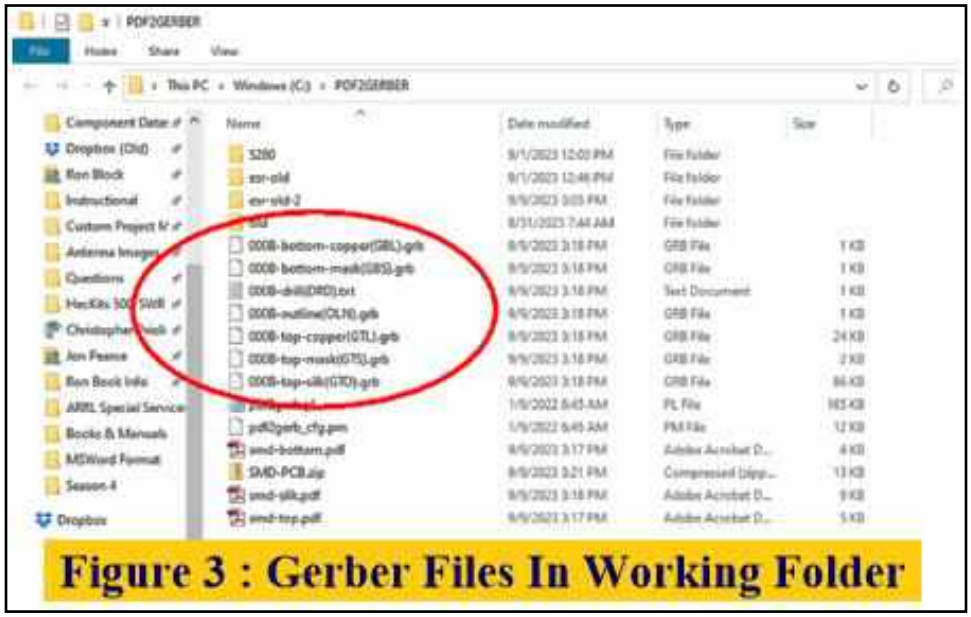

Figure 3 : Gerber Files In Working Folder

After launching ***GERBV***, click on ***File > Open layers***… and browse to the location of the new Gerber files that were made. Select all of the new Gerber files and then click ***Open***. A graphic representation **(Figure 4)** of the contents of the Gerber file set will be displayed on screen, with each layer in a different color. Select each layer individually and compare it to the original design, checking for accuracy. Once all of the layers have been proven to be accurate, combine the Gerber file set into a single ***.ZIP*** file, ready for submission to the board production house of your choice.

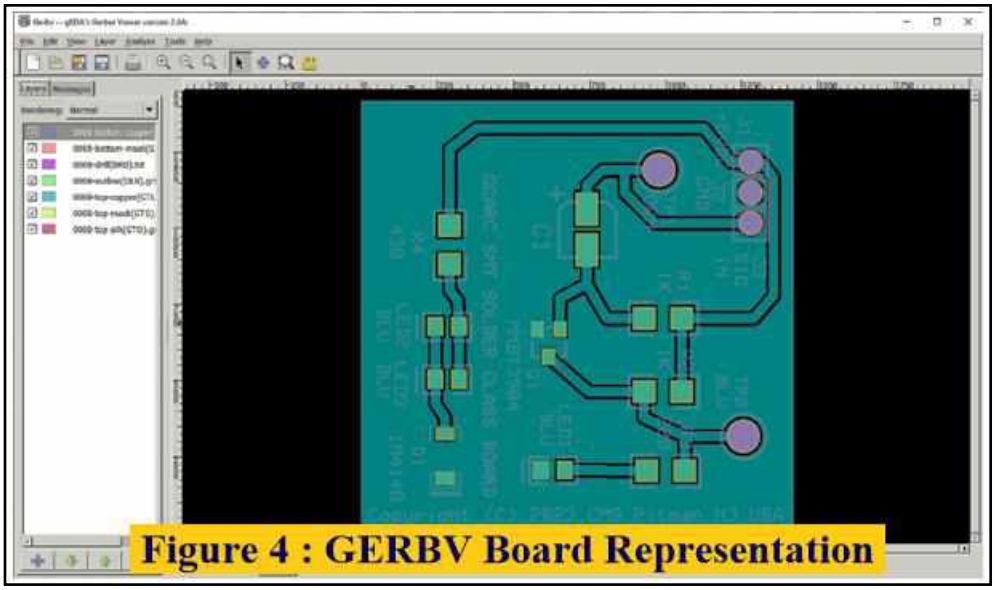

Figure 4 : GERBV Board Representation

I have now used this methodology to produce Gerber file sets from both versions of the ***ExpressPCB*** software, and have not had any errors apart from those encountered in the early developmental days. Remember that working at the command line requires precision, as any mistyped commands will result in an error. If errors are encountered, double check that you typed the commands properly.

Syntax is everything when working at the command line. Don't worry about warnings returned during the parsing of the ***.PDF*** files - they are fairly common. Just examine the Gerber files with the viewer to validate that the files are accurate. Be sure to read all of the documentation for the ***perl*** script and its operation. Most of your questions and concerns will be answered in the documentation.

Unfortunately, the software gurus at ***ExpressPCB, LLC*** have thrown another monkey wrench into the works. They substantially changed the print output dialog in such a manner that in the ***Plus*** version, it is now no longer possible to print the three separate layers individually as is possible with the ***Classic*** version. This obviates the whole plan, as I still cannot generate clean Gerber file sets from the ***ExpressPCB Plus*** application, though I can do so nicely from ***ExpressPCB Classic***. The problem is that when I use a filled plane, such as a ground plane, on some boards, the bottom copper layer does not render correctly. If I eliminate the filled plane, I can print and render the board.

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That is not acceptable to me. Maybe my long-term solution is not to use the most recent version of this software, but to switch off to some other software platform.

It would not be quite so onerous if it were not for the fact that the PCB's produced by ***ExpressPCB, LLC*** are prohibitively expensive. For a typical board design that I have produced, the boards cost me a total of about twenty-one (US) dollars delivered, for a minimum order of five copies of the board. This breaks down to two dollars for the boards and nineteen dollars for the DHL Express shipping of the package from China to my door. That is correct - extremely high-quality PCB's at a delivered price of forty cents per board plus shipping. This same order from ***ExpressPCB, LLC*** would come in at almost two hundred dollars. I cannot afford to buy my boards through their system. It is a shame that their software is so good. It ropes the user in, and then they set the hook when you try to order your boards.

A few years back, there was a piece of software on the market called ***Copper Connection*** that produced PCB designs in much the same manner as did the ***ExpressPCB Classic*** software, with the exception that this package would allow the user to generate the Gerber file set directly from the software interface. This software was very similar to the early ***ExpressPCB Plus*** version at the time. In what I see as an underhanded move, ***ExpressPCB, LLC*** bought out this software package and shut down any and all access to it, thus preventing users from generating their own Gerber file sets.

I am partially pleased with my solution to the file conversion problem, as I don't foresee the need to get much more complex in my PCB designs than the level at which I am already designing. However, as the documentation explains, some of the more advanced PCB design features are supported in this conversion script.

I will continue to produce boards using the older software version, as it meets my current needs.

Good luck, and happy converting!

FCC Initiates Broad Inquiry on Rules to Delete or Amend

In a **Public Notice (https://www.fcc.gov/document/fcc-opens-re-delete-delete-delete-docket)** titled "In Re: Delete, Delete, Delete," issued on March 12, 2025, the FCC is soliciting public input on any FCC rules in any service that members of the public believe should be deleted or modified "for the purpose of alleviating unnecessary regulatory burdens." This is the latest in a series of similar proceedings going back to 1996, when the Communications Act was amended to require the FCC to periodically review its rules.

ARRL (https://www.arrl.org), through its Executive Committee and FCC Counsel, is conducting a review of the provisions in Part 97 and other related rules that apply to radio amateurs. ARRL is also soliciting feedback from its members. Rules identified as outmoded, obsolete, or that for other reasons should be repealed or modified, will be included in ARRL's filing to be submitted no later than the FCC deadline of April 11, 2025. The deadline for filing reply comments is April 28, 2025.

It is expected that the Commission will incorporate suggestions that it decides worthy of its consideration in a future Notice of Proposed Rulemaking (NPRM) that could be issued later this year. There will then be an opportunity for public comment on the specific rules that the Commission proposes for deletion or modification.

A PDF of the FCC Public Notice is available here : **https://docs.fcc.gov/public/attachments/DA-25-219A1.pdf**.

To Be Added To The DX HONOR ROLL or Update Your Number, Please Contact
Ernest Kraus, KD2EAV
meanddelcanotc@verizon.net

Name/Callsign	DXCC
Bill Grim, W0MHK	352
Dave Strout, W2YC	349
Edward De Fonzo, W2DE	339
Darrell Neron, AB2E	336
Bob Pantazes, W2ARP	290
Gary Castellini, N2IEC	280
Vinnie Sallustio, N4NYY	999 HIHI
John Hill, W2HUV	271
Sheldon Parker, K2MEN	267
Jim Wright, N2GXJ	263
Ken Denson, WB2P	248
Tony Starr, K3TS	242
Dennis Sandole, K2SE	231
Howard Marder, WA2IBZ	158
Eric Morris, N2BRJ	157
Art Strong, KA0WS	157
Steve Farney, W2SEF	147
Phil Nunzio, WA3RGY	144
Rich Subers, W2RHS	133
Ben Johnson, NE2R	127
Bart Kleczynski, AC2PT	124
Marc Federici, WM2Y	117
Chuck Capasso, WB2PGE	104
Harry Strahlendorf Jr, W3DNQ	103
Jim Clark, KA2OSV	87
Lee Marino, N2LAM	71
Updated As Of 03/24/2025	

V S W R M O X O N R S I X
T H I S I N E P T I C O M
V O L T N I N E X C O N T
M O D U L A T O R P O W E R
V O M N A S A
A D C G I G P R E A M P
M U L T I Y A G I A R I A
S P E E C H P R O C E S S O R
A L A R I S M S C T O N E
T E R M A N H R O N E D
P T W O E L E
K E Y E R A M P L I F I E R
I C E D A D O R E G R A Y
T H A I T E N O N H A R A
S O R T E R E C T I N N S

Hmm...It's Saturday and you want to know if someone is at the Clubhouse? Why not call and find out! What!!!

W2MMD Clubhouse : 867-5309 (Ask for Jennifer)

Yes, We Do Have Prince Albert In A Can!

April Birthdays

Congratulations To Our Members Who Are Celebrating A Birthday This Month

Lance Appel, KE2UC
Marshall Baker, KC2DFO
Jim Bishop, KE2EUD
Ron Block, NR2B
Irma Colabrese, N2FNF
Ralph Daggan III, KE2AHX
Doug Dersch, KD2VQA
Joe DiCastelnuovo, KD2RPD
Marc Federici, WM2Y
Tim Furey Sr, KE2AHY
John Gordon, WA2RHJ
Anish James, KE2DRI
Calvin Keller, N2YMS
Tom Litle Sr, AB2YG
Jerry Marinacci, KE2CK
Frank Mayer, W2SDR
Ray Metzger, AI2B (President 1978)
Jerry Milden, K2OOO
Phil Nunzio, WA3RGY
John O'Connell, K2QA
Aimée Ortiz, K9RVT
Mike Resnick, N2WOQ
Frank Romeo Jr, N3PUU
Paul Sandora
Jack Snyder, AI2D
Bob Snyder, N2KGO
Jeff Thomson, NJ2JT

In Memoriam : April Birthdays

Robert Anstatt, WB2CPL
Stanley Christman, KB2DW

Gurdon Cooper, AA4N
(Charter Member, President 1966)

Frederick Cowgill, WB2GEK
Daniel Damiano, KC2ELC
Harry English III, N2JIB
Milton Frantz Jr, K2MXF
Gerald Friedman, KB2DHQ
Mark Gennovario, K2UMF
Norman Harbison Jr, K2NH
William King, N2STQ
Leonard Kravitz, KD2CR
Thomas McCormick, WA2OZH
Whitney Myers, KB2ZTL
Thomas Oakman, WV8TDO
Martin O'Grady, N2FPO
David Riker, WA2KOH
Laurence Rockhill, WA2SJG
Leonard Staab IV
Edwin Stetser Sr, K2JJC (Charter Member)
Keith Waltman, W2ERP
Lester Wolf, W2OM
William Wyatt Sr, N2WIB

CrossTalk Submissions

This is your Club Magazine. Make use of it.

If you have stories or photos of your hobby that you would like to share with the Club, please do so! We will keep covering all of the GCARC events, but it is also nice to get those personal perspectives to include in every issue. Connecting through experiences is what makes the Gloucester County Amateur Radio Club a *REAL* Club.

All submissions, queries, comments, and editorials should be addressed to :
Jeff Garth, WB2ZBN at djgrath1 <*at*> gmail <*dot*> com

Submission deadline for the May 2025 issue : Sunday, April 20, 2025

Club Website www.w2mmd.org
Club E-Mail Reflector : GCARC <*at*> Mailman <*dot*> QTH <*dot*> Net

CQ 160 Meter Contest, CW 2025
January 24, 2025

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : Single Op Assisted HP
QTH : SNJ
Operating Time (hrs) : 9.5
Location : USA

Summary :
Total : QSOs : 401 State/Prov : 50 Countries : 28
Total Score : 86,580

Club : Frankford Radio Club **009**

Comments :
Rig : FTDX-9000D/OM Power 2000A+ amp
Antenna :
Inverted-L over 100ft tree, 6 elevated tuned radials
RX Ant: HiZ4 60ft 4-square (optimized for 80m due to space limitations)
Op time : 9.5 hours

Wish I had more time to operate. Fri night was not good to EU for me, only worked 2 stations. Good luck working US/VE, but missed DC, ND, WA,NV, WY. Very few VE's on and missed a lot of those. Sat night condx much better, and got PJ2T, FM5BH, ZF5T, and KP4AA in the log first call. EU was strong enough to round out DX mults with 28, all but 5 were EU, and 1 Africa mult. I have no room for a beverage on a 210ft square lot, and my HiZ4 is compromised in the NW position due to one vertical being in close proximity to a metal garage. Generally works well for EU, and was typically 3 S-units lower noise than listening on the Inverted-L, and when I added the u-tune filters on the 9000D, that cut noise an additional 2 s units. All told, 4-5 S units lower using the HiZ4 with the mechanical Yaesu u-tune filters. It was fun to see the EU skimmers call me out on Sat night.

Finally cracked 400Qs at the very end before going to bed.

73 Darrell AB2E

Contest : CQ160CW

Band	QSOs	Pts	StP	DXC	Pt/Q
1.8	401	1110	50	28	2.8
Total	401	1110	50	28	2.8

Score : 86,580
1 Mult = 5.1 Q's

CQ 160 Meter Contest, CW 2025
January 24, 2025

Call : K3TS
Operator (s) : K3TS
Station : K3TS

Class : Single Op Assisted HP
QTH : Pennsylvania
Operating Time (hrs) : 10
Location : USA

Summary :
Total : QSOs : 468 State/Prov : 53 Countries : 38
Total Score : 132,496

Club : Frankford Radio Club **010**

Comments :
Beat my prior best score (from 2020) by more than 25k, thanks to the new, quieter QTH. Made some decent rates on Friday night, but Saturday night was much slower, and so was I, thanks to spending the day out in the cold splitting firewood, a household necessity after a lengthy cold snap. While I still don't care for single-band contests, I am warming up to Top Band these days, now that I no longer have S9-plus noise levels. Needed 3 states for WAS (ND, WA, WY), and only worked half of the 14 Canadian provinces (what were they doing instead of this?) which was unusual. About three dozen DX countries was just OK. Thanks to all who called in, and maybe we will get on for the SSB madness next month. 73 de K3TS

North American QSO Party, CW 2025
January 12, 2025

Call : WB2PJH
Operator (s) : WB2PJH
Station : WB2PJH

Class : Single Op Assisted LP
QTH :
Operating Time (hrs) : 8.5
Location : USA

Summary :

Band	QSOs	Mults
80 :	77	31
40 :	94	39
20 :	56	29
15 :	53	25
10 :	45	18
Total :	325	142

Total Score : 46,150

Club : Frankford Radio Club **006**

Team : FRC Team Henry

Hungarian DX Contest 2025
January 18, 2025

Call : WB2PJH
Operator (s) : WB2PJH
Station : WB2PJH

Class : SOABCW HP
QTH :
Operating Time (hrs) : 4
Location : USA

Summary :

Band	CW Qs	SSB Qs	Mults
40 :	14		
20 :	18		
15 :	3		
Total :	35	0	27

Total Score : 6,264

Club : Frankford Radio Club **011**

British Columbia QSO Party 2025
February 1, 2025

Call : WB2PJH
Operator (s) : WB2PJH
Station : WB2PJH

Class : Single OpCW HP
QTH : NNJ
Operating Time (hrs) : 6
Location : Out of State/Province

Summary :

Band	CW Qs	Ph Qs	CW Mults	Ph Mults
20 :	12			
15 :	11			
10 :	8			
Total :	31	0	24	0

Total Score : 3,036

Club : Frankford Radio Club **013**

Minnesota QSO Party 2025
February 1, 2025

Call : WB2PJH
Operator (s) : WB2PJH
Station : WB2PJH

Class : Single OpCW HP
QTH : NNJ
Operating Time (hrs) : 6
Location : Out of State/Province

Summary :

Band	CW-RTTY Qs	Ph Qs	
40 :	8		
20 :	37		
15 :	27		
10 :	3		
Total :	75	0	Mults : 31

Total Score : 4,650

Club : Frankford Radio Club **012**

Comments :
Special thanks to the Super Mobiles, notably Bill AC0W, and Bob K0RC and all the other CW operators.

Vermont QSO Party 2025
February 1, 2025

Call : WB2PJH
Operator (s) : WB2PJH
Station : WB2PJH

Class : Single Op HP
QTH : NNJ
Operating Time (hrs) : 6
Location : Out of State/Province

Summary :

Band	CW Qs	Ph Qs	Dig Qs	
80 :	3			
40 :	7	7		
20 :	3	1		
15 :	2			
Total :	15	8	CW Mults : 5	Ph Mults : 5

Total Score : 380

Club : Frankford Radio Club **014**

Comments :
Very limited CW participation compared to last year.

Operating Tip

Check the long path. Sometimes your competitors forget to do so, and you will have the advantage.

Announced DX Operations
www.ng3k.com/Misc/adxo.html
From The Shack of Bill Feidt, NG3K : www.ng3k.com

2025 Mar18	2025 Apr01	**Micronesia**	**V6WG**	LoTW	TDDX 20241216	By WE9G fm Kosrae I (IOTA OC-059); 80-6m, perhaps 160m; mainly FT8 FT4, some SSB CW; QSL via WE9G (B/d)
2025 Mar18	2025 Apr08	**Tanzania**	**5H3MB**	LoTW	TDDX 20250214	By IK2GZU; 80-10m; SSB CW + digital; QSL via 5H3MB (B/d)
2025 Mar20	2025 Mar26	**San Andres & Providencia**	**HK0** NEW	LoTW	TDDX 20250306	By HJ4ADR as HJ4ADR/0; 40 10m; SSB FT8; 20w
2025 Mar24	2025 Mar31	**Cyprus SBA**	**ZC4MK**	G0KOM	DXW.Net 20241221	By G0KOM; QRV for CQ WPX SSB
2025 Mar24	2025 Apr04	**St Barthelemy**	**TO1P**	Club Log OQRS	SP9FIH 20250213	By SP9FIH; 40 17 10m; SSB FT8 RTTY
2025 Mar24	2025 Apr05	**Rodrigues I**	**3B9DJ**	LoTW	DXW.Net 20240919	By OK6DJ OK1CRM OK2ZA; 160-10m; CW SSB RTTY FT8; QSL via Club Log OQRS (preferred) or OK6DJ
2025 Mar24	2025 Apr07	**Guadeloupe**	**TO1Q** NEW	LoTW	DXW.Net 20250310	By F1ULQ; @FG8OJ; HF + 6m; SSB + digital; QRV for CQ WPX SSB; QSL via F1ULQ (B/d)
2025 Mar26	2025 Mar31	**St Lucia**	**J62K**	LoTW	W0CN 20250222	By J68HZ J69DS KN2P DL3ON WA4PGM W0CN; QRV for CQ WPX SSB (M/2); QSL via K9HZ
2025 Mar26	2025 Apr05	**Sint Maarten**	**PJ7EE**	LoTW	DXW.Net 20250224	By KC9EE; focus on 12 10 6m for Asia; QSL via Club Log OQRS or KC9EE direct
2025 Mar29	2025 Apr19	**Bahmas**	**C6APS** NEW	LoTW	TDDX 20250306	By WA4PAW fm Great Abaco I (IOTA NA-080; 40-10m; FT8 CW SSB; QSL via Club Log OQRS
2025 Mar30	2025 Apr06	**Honduras**	**HR9**	LoTW	OPDX 20250130	By K6VHF as K6VHF/HR9 fm Roatan I; 80-6m; SSB CW RTTY FT8; 100w; QSL via Club Log OQRS or K6VHF (B/d)
April						
2025 Apr01	2025 Apr07	**Surinam**	**PZ5IP**	PY8WW OQRS	OPDX 20250212	By PY8WW PZ5JW DL8TG fm Papegaaien I (IOTA SA=092); 40-10m; CW SSB + digital
2025 Apr02	2025 Apr10	**Ogasawara**	**JD1**	Auto Buro	DXW.Net 20250225	By Toshiba Fuchu Amateur Radio Club ops as JA1YVT/JD1 fm Chichijima I (Apr 2-7) and Hahajima I (Apr 7-10); 80-2m; CW SSB FT8
2025 Apr03	2025 Apr10	**Maldives**	**8Q7EF**	LoTW	OPDX 20250111	By IW2NEF fm Filitheyo I; 40-6m; SSB FT8; QSL via IK2DUW direct or HE9ERA Buro
2025 Apr08	2025 Apr17	**Ogasawara**	**JD1** NEW	LoTW	OPDX 20250308	By JI1LET as JD1BOI and JA1UII as JD1BON fm Chichijima I (IOTA AS-031); 160-6m; CW SSB FT8 FT4; QSL via home_call direct
2025 Apr09	2025 Apr15	**French Polynesia**	**TX7XG**	LoTW	TDDX 20240923	By JA1XGI fm Fakarava Atoll (IOTA OC-066, BH73ev); 40-6m
2025 Apr10	2025 Apr27	**Br Virgin Is**	**VP2VI**	LoTW	DXW.Net 20250225	By DA1DX DK9IP DM6EE DL8LAS; HF + 6m
2025 Apr16	2025 Apr23	**Palau**	**T88UW**	LoTW	OPDX 20250208	By JH7IPR fm IOTA OC-009; HF; FT8, some CW SSB; QSL via Club Log OQRS or JH7IPR (B/d(
2025 Apr17	2025 Apr27	**Bonaire**	**PJ4CB**	LoTW	OPDX 20241129	By WA7RAR; 20-10m; CW SSB; holiday style operation; QSL via WA7RAR direct
2025 Apr18	2025 Apr20	**East Kiribati**	**T32AZ**	KH6QJ (B/d)	TDDX 20250221	By KH6QJ; 40 20 15 10m
2025 Apr18	2025 Apr26	**Galapagos**	**HD8G**	LoTW	DXW.Net 20240609	By PY2PT PY2WAS PY5CC YT1AD + team fm IOTA SA-004 (EI49tf); 160-6m, incl 60m; SSB CW FT4 FT8 RTTY; QSL via M0URX OQRS
2025 Apr19	2025 May02	**Gambia**	**C5**	LoTW	DXW.Net 20241227	By F5RAV as C5LT and YU5R as C5R fm nr Kololi; HF; CW SSB FT8
2025 Apr25	2025 Apr28	**Thailand**	**E28AM/p**	LoTW	OPDX 20250227	By E20EHQ E21LLR E25GGT E25KFR E25VVE HS1JZT HS5NMF IV3GMZ fm Chang I (IOTA AS-125); 40-10m; CW SSB FT8; holiday style operation
2025 Apr25	2025 May07	**Austral Is**	**TX9A**	DK8ZZ	DXW.Net 20240927	By 9A2NA 9A3MR 9A9R DK8ZZ fm IOTA OC-152; HF

Also for your convenience, there is a direct link to NG3K on our website. Click on the NG3K DX Page.

April 2025 Contest Calendar - WA7BNM Contest Calendar : www.contestcalendar.com

April 2025	
Worldwide Sideband Activity Contest	0100Z-0159Z, Apr 1
ICWC Medium Speed Test	0300Z-0400Z, Apr 1
QCX Challenge	0300Z-0400Z, Apr 1
ZL Sprint	0800Z-0829Z (CW), Apr 1 and 0830Z-0859Z (SSB), Apr 1 and 0900Z-0929Z (SSB), Apr 1
QRP Fox Hunt	0100Z-0230Z, Apr 2
Phone Weekly Test	0230Z-0300Z, Apr 2
A1Club AWT	1145Z-1300Z, Apr 2
CWops Test (CWT)	1300Z-1400Z, Apr 2
Mini-Test 40	1700Z-1759Z, Apr 2
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Apr 2
Mini-Test 80	1800Z-1859Z, Apr 2
CWops Test (CWT)	1900Z-2000Z, Apr 2
UKEICC 80m Contest	2000Z-2100Z, Apr 2
Walk for the Bacon QRP Contest	0000Z-0100Z, Apr 3 and 0200Z-0300Z, Apr 4
CWops Test (CWT)	0300Z-0400Z, Apr 3
CWops Test (CWT)	0700Z-0800Z, Apr 3
SARL 80m QSO Party	1700Z-2000Z, Apr 3
NRAU 10m Activity Contest	1800Z-1900Z, Apr 3 (CW) and 1900Z-2000Z, Apr 3 (SSB) and 2000Z-2100Z, Apr 3 (FM) and 2100Z-2200Z, Apr 3 (Dig)
SKCC Sprint Europe	1900Z-2100Z, Apr 3
NCCC FT4 Sprint	0100Z-0130Z, Apr 4
QRP Fox Hunt	0100Z-0230Z, Apr 4
Weekly RTTY Test	0145Z-0215Z, Apr 4
NCCC Sprint	0230Z-0300Z, Apr 4
K1USN Slow Speed Test	2000Z-2100Z, Apr 4
PODXS 070 New Member Jamboree	0000Z-2359Z, Apr 5
YBDXPI SSB Contest	0000Z, Apr 5 to 2359Z, Apr 6
RSGB FT4 International Activity Day	1200Z, Apr 5 to 1200Z, Apr 6
Georgia State Parks on the Air	1200Z, Apr 5 to 2359Z, Apr 6
EA RTTY Contest	1200Z, Apr 5 to 1200Z, Apr 6
Florida State Parks on the Air	1400Z-2200Z, Apr 5 and 1400Z-2200Z, Apr 6
Missouri QSO Party	1400Z, Apr 5 to 0400Z, Apr 6 and 1400Z-2000Z, Apr 6
Mississippi QSO Party	1400Z, Apr 5 to 0200Z, Apr 6
Louisiana QSO Party	1400Z, Apr 5 to 0200Z, Apr 6
SP DX Contest	1500Z, Apr 5 to 1500Z, Apr 6
George Batterson 1935 QSO Party	2300Z, Apr 5 to 0300Z, Apr 7 and 2300Z, Apr 12 to 0300Z, Apr 14
K1USN Slow Speed Test	0000Z-0100Z, Apr 7
ICWC Medium Speed Test	1300Z-1400Z, Apr 7
OK1WC Memorial (MWC)	1630Z-1729Z, Apr 7
ICWC Medium Speed Test	1900Z-2000Z, Apr 7
RSGB 80m Club Championship, CW	1900Z-2030Z, Apr 7
ARS Spartan Sprint	0100Z-0300Z, Apr 8
Worldwide Sideband Activity Contest	0100Z-0159Z, Apr 8
ICWC Medium Speed Test	0300Z-0400Z, Apr 8
ZL Sprint	0800Z-0829Z (CW), Apr 8 and 0830Z-0859Z (SSB), Apr 8 and 0900Z-0929Z (SSB), Apr 8
DARC RTTY Sprint	1800Z-1929Z, Apr 8
NAQCC CW Sprint	0030Z-0230Z, Apr 9
Phone Weekly Test	0230Z-0300Z, Apr 9
A1Club AWT	1145Z-1300Z, Apr 9
CWops Test (CWT)	1300Z-1400Z, Apr 9
Mini-Test 40	1700Z-1759Z, Apr 9
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Apr 9
Mini-Test 80	1800Z-1859Z, Apr 9
CWops Test (CWT)	1900Z-2000Z, Apr 9
CWops Test (CWT)	0300Z-0400Z, Apr 10
CWops Test (CWT)	0700Z-0800Z, Apr 10
NCCC FT4 Sprint	0100Z-0130Z, Apr 11
Weekly RTTY Test	0145Z-0215Z, Apr 11

April 2025 Contest Calendar - Continued on page 54

April 2025 Contest Calendar - Continued from page 53

NCCC Sprint	0230Z-0300Z, Apr 11
K1USN Slow Speed Test	2000Z-2100Z, Apr 11
QRP ARCI Spring QSO Party	0000Z-0600Z, Apr 12
JIDX CW Contest	0700Z, Apr 12 to 1300Z, Apr 13
DIG QSO Party, CW	1200Z-1700Z, Apr 12 (20m-10m) and 0700Z-0900Z, Apr 13 (80m) and 0900Z-1100Z, Apr 13 (40m)
IG-RY World Wide RTTY Contest	1200Z, Apr 12 to 1800Z, Apr 13
SKCC Weekend Sprintathon	1200Z, Apr 12 to 2400Z, Apr 13
Yuri Gagarin International DX Contest	1200Z, Apr 12 to 1159Z, Apr 13
OK/OM DX Contest, SSB	1200Z, Apr 12 to 1159Z, Apr 13
Texas State Parks on the Air	1300Z, Apr 12 to 1259Z, Apr 13
New Mexico QSO Party	1400Z, Apr 12 to 0200Z, Apr 13
Africa FT4 DX Contest	1500Z-1800Z, Apr 12
North Dakota QSO Party	1800Z, Apr 12 to 1800Z, Apr 13
Georgia QSO Party	1800Z, Apr 12 to 0359Z, Apr 13 and 1400Z-2359Z, Apr 13
Hungarian Straight Key Contest	1500Z-1600Z, Apr 14
ARRL Rookie Roundup, SSB	1800Z-2359Z, Apr 13
4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Apr 14
K1USN Slow Speed Test	0000Z-0100Z, Apr 14
ICWC Medium Speed Test	1300Z-1400Z, Apr 14
OK1WC Memorial (MWC)	1630Z-1729Z, Apr 14
ICWC Medium Speed Test	1900Z-2000Z, Apr 14
144 MHz Spring Sprint	2300Z, Apr 14 to 0600Z, Apr 15
Worldwide Sideband Activity Contest	0100Z-0159Z, Apr 15
ICWC Medium Speed Test	0300Z-0400Z, Apr 15
ZL Sprint	0800Z-0829Z (CW), Apr 15 and 0830Z-0859Z (SSB), Apr 15 and 0900Z-0929Z (SSB), Apr 15
Phone Weekly Test	0230Z-0300Z, Apr 16
A1Club AWT	1145Z-1300Z, Apr 16
CWops Test (CWT)	1300Z-1400Z, Apr 16
Mini-Test 40	1700Z-1759Z, Apr 16
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Apr 16
Mini-Test 80	1800Z-1859Z, Apr 16
RSGB 80m Club Championship, SSB	1900Z-2030Z, Apr 16
CWops Test (CWT)	1900Z-2000Z, Apr 16
Walk for the Bacon QRP Contest	0000Z-0100Z, Apr 17 and 0200Z-0300Z, Apr 18
CWops Test (CWT)	0300Z-0400Z, Apr 17
CWops Test (CWT)	0700Z-0800Z, Apr 17
Maundy Thursday Contest	1200Z-1500Z, Apr 17 and 2000Z-2300Z, Apr 17
NTC QSO Party	1900Z-2000Z, Apr 17
NCCC FT4 Sprint	0100Z-0130Z, Apr 18
Weekly RTTY Test	0145Z-0215Z, Apr 18
NCCC Sprint	0230Z-0300Z, Apr 18
K1USN Slow Speed Test	2000Z-2100Z, Apr 18
World Wide Holyland Contest	2100Z, Apr 18 to 2059Z, Apr 19
ES Open HF Championship	0500Z-0859Z, Apr 19
Worked All Provinces of China DX Contest	0600Z, Apr 19 to 0559Z, Apr 20
Dutch PACCdigi Contest	0700Z to 1900Z, Apr 19
YU DX Contest	0700Z, Apr 19 to 0659Z, Apr 20
QRP to the Field	0800-1800 local, Apr 19
CQMM DX Contest	0900Z, Apr 19 to 2359Z, Apr 20
Nebraska QSO Party	1100Z to 2259Z, Apr 19
Michigan QSO Party	1600Z, Apr 19 to 0400Z, Apr 20
EA-QRP CW Contest	1700Z-1800Z, Apr 19 (10m) and 1800Z-1900Z, Apr 19 (15m) and 1900Z-2000Z, Apr 19 (20m) and 2000Z-2100Z, Apr 19 (40m) and 2100Z-2300Z, Apr 19 (80m) and 0700Z-0900Z, Apr 20 (40m) and 0900Z-1000Z, Apr 20 (20m) and 1000Z-1100Z, Apr 20 (15m) and 1100Z-1200Z, Apr 20 (10m)
Feld Hell Sprint	1800Z-2159Z, Apr 19
Ontario QSO Party	1800Z, Apr 19 to 0500Z, Apr 20 and 1200Z-1800Z, Apr 20

April 2025 Contest Calendar - Continued on page 55

April 2025 Contest Calendar - Continued from page 54

International Vintage Contest HF	0700Z-1100Z, Apr 20 and 1500Z-1900Z, Apr 20
Quebec QSO Party	1200Z-2200Z, Apr 20
Run for the Bacon QRP Contest	2300Z, Apr 20 to 0100Z, Apr 21
K1USN Slow Speed Test	0000Z-0100Z, Apr 21
IRTS 70cm Counties Contest	1300Z-1330Z, Apr 21
ICWC Medium Speed Test	1300Z-1400Z, Apr 21
IRTS 2m Counties Contest	1330Z-1500Z, Apr 21
DARC Easter Contest	1500Z-1729Z, Apr 21
OK1WC Memorial (MWC)	1630Z-1729Z, Apr 21
ICWC Medium Speed Test	1900Z-2000Z, Apr 21
Worldwide Sideband Activity Contest	0100Z-0159Z, Apr 22
ICWC Medium Speed Test	0300Z-0400Z, Apr 22
ZL Sprint	0800Z-0829Z (CW), Apr 22 and 0830Z-0859Z (SSB), Apr 22 and 0900Z-0929Z (SSB), Apr 22
222 MHz Spring Sprint	2300Z, Apr 22 to 0600Z, Apr 23
SKCC Sprint	0000Z-0200Z, Apr 23
Phone Weekly Test	0230Z-0300Z, Apr 23
A1Club AWT	1145Z-1300Z, Apr 23
CWops Test (CWT)	1300Z-1400Z, Apr 23
Mini-Test 40	1700Z-1759Z, Apr 23
Mini-Test 80	1800Z-1859Z, Apr 23
CWops Test (CWT)	1900Z-2000Z, Apr 23
CWops Test (CWT)	0300Z-0400Z, Apr 24
CWops Test (CWT)	0700Z-0800Z, Apr 24
RSGB 80m Club Championship, Data	1900Z-2030Z, Apr 24
NCCC FT4 Sprint	0100Z-0130Z, Apr 25
Weekly RTTY Test	0145Z-0215Z, Apr 25
NCCC Sprint	0230Z-0300Z, Apr 25
K1USN Slow Speed Test	2000Z-2100Z, Apr 25
10-10 Int. Spring Contest, Digital	0001Z, Apr 26 to 2359Z, Apr 27
UK/EI DX Contest, CW	1200Z, Apr 26 to 1200Z, Apr 27
SP DX RTTY Contest	1200Z, Apr 26 to 1200Z, Apr 27
Helvetia Contest	1300Z, Apr 26 to 1259Z, Apr 27
Florida QSO Party	1600Z, Apr 26 to 0159Z, Apr 27 and 1200Z-2159Z, Apr 27
UA1DZ Memorial Cup	1300Z-1859Z, Apr 27
BARTG Sprint 75	1700Z-2059Z, Apr 27
K1USN Slow Speed Test	0000Z-0100Z, Apr 28
ICWC Medium Speed Test	1300Z-1400Z, Apr 28
QCX Challenge	1300Z-1400Z, Apr 28
OK1WC Memorial (MWC)	1630Z-1729Z, Apr 28
QCX Challenge	1900Z-2000Z, Apr 28
ICWC Medium Speed Test	1900Z-2000Z, Apr 28
RSGB FT4 Contest	1900Z-2100Z, Apr 28
Worldwide Sideband Activity Contest	0100Z-0159Z, Apr 29
ICWC Medium Speed Test	0300Z-0400Z, Apr 29
QCX Challenge	0300Z-0400Z, Apr 29
ZL Sprint	0800Z-0829Z (CW), Apr 29 and 0830Z-0859Z (SSB), Apr 29 and 0900Z-0929Z (SSB), Apr 29
Phone Weekly Test	0230Z-0300Z, Apr 30
A1Club AWT	1145Z-1300Z, Apr 30
CWops Test (CWT)	1300Z-1400Z, Apr 30
Mini-Test 40	1700Z-1759Z, Apr 30
Mini-Test 80	1800Z-1859Z, Apr 30
CWops Test (CWT)	1900Z-2000Z, Apr 30
UKEICC 80m Contest	2000Z-2100Z, Apr 30
432 MHz Spring Sprint	2300Z, Apr 30 to 0600Z, May 1

Electronic Tool Tip #13 - Ribbon Wire Stripper

By Chris Prioli, AD2CS - chris@ad2cs.com - www.ad2cs.com

When you work with electronics long enough, you will eventually get to the point where you find that you need to strip ribbon wire. Ribbon wire is best described as a multi-conductor cable in which the individual wires that comprise the cable are arranged in a parallel form. Such an arrangement makes for difficult stripping of the individual wires without separating them. Bring in the ***Dowell Ribbon Cable Stripper***.

This tool provides the ability to simultaneously strip all of the conductors in a ribbon cable up to 1/2" in width. By making multiple "bites" on the width of the cable, wider cables can also be stripped. To put things into proper perspective, an eight-wire 28AWG ribbon cable will be 10mm wide, or about 0.39" wide, and will therefore be strippable in a single motion using this tool.

The stripper is designed for wire from 24AWG through 14AWG, and can make strip lengths of anywhere from 1/4" to 3/4" in length. The strip length is adjustable by way of a sliding stop against which the end of the wire is placed prior to stripping. There is also an adjustment for the diameter of the wire to be stripped. Turning the knurled knob at the back of the tool head adjusts the wire diameter setting. Rotating this knob clockwise provides for stripping smaller-diameter wire, while turning it counter-clockwise sets the tool for larger-diameter wire.

This tool is also perfectly suited for making directly-repeatable strips to individual wires as well. For example, when preparing one of the kits that I sell, I need to strip a total of twenty-four wires. At one end, all of the wires get stripped to a length of 5/16". At the opposite end, 18 of the wires get stripped to that same length, while the remaining six wires must be stripped to a length of 3/4". This repeatability is quite easy using this tool. I set it once for the 5/16" distance and strip everything that goes to that length, and then I reset the tool for 3/4" and strip the rest of the wire ends. When seeking a professional appearance and feel to my kits, this degree of uniformity is exactly what I need, and this tool makes it easy to accomplish.

I frequently use this stripper for preparing twin-lead or zip-wire for termination or soldering. It works perfectly on the two-conductor flat cables, as would be expected. While the documentation says that the tool tops out at 14AWG wire, I have successfully used it on 12AWG silicone-jacketed zip-wire.

This stripper is available online from Amazon, at a price of $7.99 (USD) plus shipping if you are not an Amazon Prime member. Of course, the government has to get its share, so tax will also be applied. Point your browser to **https://www.amazon.com/DOWELL-Stripping-Electrical-Automotive-HY040701N/dp/B09N17V87V** if you want to investigate this item for yourself.

Word to the Wise
W/VE Stations
When reading rules for a specific contest, you'll often see language like "W/VE stations work DX stations; DX stations work everyone." I've been asked what a W/VE station is on several occasions. W/VE stations are located in the United States and Canada, while DX stations are located throughout the rest of the world. Be careful though, in some contests Alaska, Hawaii, and the US territories are considered DX (such as in the ARRL International DX Contest), and others they are considered W/VE (such as in ARRL November Sweepstakes).

RADIO ELECTRONICS EXPO
Georgetown Hamfest
SATURDAY
April 26, 2025
Cheer Community Center
20520 Sand Hill Rd.
Georgetown, DE 19947
SUSSEX SARA AMATEUR RADIO ASSOCIATION, INC
Sponsored by
Sussex Amateur Radio Association
RadioElectronicsEXPO.com
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ARRL
Jocelyn Quick, KB3RAR

Old Barney Amateur Radio Club
HAM FEST AT THE SHORE
SATURDAY MAY 3, 2025
SURF CITY VOLUNTEER FIRE COMPANY
713 LONG BEACH BLVD SURF CITY, NJ 08008
8:00AM-1:00PM - VENDOR SET UP 7:00AM
DOOR PRIZES!
Admission Fee: $5
NON-HAM SPOUSES AND KIDS FREE!
Indoor Vendor Table - $15 - Includes table and 1 Admission
Outside Vendor - $10 - 1 Parking Space Area, No Tables Provided
Vendor space limited - first come, first serve.
Food and Drink Available * Benefits Surf City Vol. Fire Company
WALLY'S
breakfast • lunch • dinner
15% OFF
With Event Ticket
TALK IN FREQUENCY
146.835
127.3 PL
VE SESSION - 10:00AM - $15 FEE
CONTACT RICHARD KENNARD, N2RPQ
FRN NUMBER AND PHOTO ID REQUIRED
Obtain FRN Number at FCC.GOV
QUESTIONS? Contact Ira, N2WAA
hamfest@obarc.org - 201.741.5330
ARRL
The National Association for Amateur Radio
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2025 Club Committees

Standing Committees	Committee Chairs
Budget	**John O'Connell, K2QA**
Constitution & By-Laws	**Ron Block, NR2B**
Education	**Chris Prioli, AD2CS**
Field Day	**Jim Wright, N2GXJ**
Hamfest	**Ron Block, NR2B**
Health, Welfare, & Silent Keys	**Bill Price, NJ2S**
Hospitality	**Jeff Garth, WB2ZBN**
Membership & Membership Badges	**Chris Prioli, AD2CS**
Publicity	**Mike Resnick, N2WOQ**
Repeaters	***Open Chair***
Volunteer Examiner Liaison	**Chris Prioli, AD2CS**
W2MMD Clubhouse Site	**Al Arrison, KB2AYU**

Activity Committees	Committee Chairs
Awards & Certificates	**GCARC Board of Directors**
Club Photographer	**Phil Nunzio, WA3RGY**
Club Publications & Historian	**Jeff Garth, WB2ZBN**
Contests	**Tony Starr, K3TS**
GCARC Foxhunts	**Jim Wright, N2GXJ**
GCARC Picnic	**Frank Romeo, N3PUU**
GC-ARES Emergency Coordinator	**Bob Keogh, KD2NEC**
Holiday Dinner Party	**Beth Barnish, KB2EAL**
Membership Roster Database	**Jeff Garth, WB2ZBN**
Nominations	**Jon Pearce, WB2MNF**
Programs : General Membership Meetings	**Ron Block, NR2B**
Radio Nets	***Open Chair***
Technical (Tech Saturday, TechNets)	**Jon Pearce, WB2MNF**
W2MMD License Trustee	**Darrell Neron, AB2E**
W2MMD Special Event Station	**Mark Gottlieb, KK2L**

GCARC <*at*> Mailman <*dot*> QTH <*dot*> Net e-mail reflector guidelines

1. **No attachments** (e.g. pictures, files) are allowed on the reflector.
2. If you have Club-related pictures that you would like to share, you can send them to the webmaster, he will put them on the website and will send out a general e-mail to all the members.
3. Otherwise, the pictures will have to be sent to the members' addresses.
4. URLs/Hyperlinks are acceptable on the reflector.
5. Do not send any messages with e-mail addresses in the **BCC** (**Blind Carbon Copy**) field. The message will be rejected. Use only the **To:** or **CC:** fields.
6. Members are subscribed to the reflector using the member's e-mail address from the roster database. You must use that address when sending an e-mail via the reflector.
7. If you use another address on the reflector, the message will get rejected or "*bounced*", because the reflector does not recognize that address. Whenever a message sent to reflector is rejected or *"bounced"* for various reasons, the administrator has to log-in to the Mailman.QTH website and approve the message.

The W2MMD Repeaters

2 Meter Repeater
Output : 147.180 MHz
Input : 147.780 MHz
Offset : +600 kHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)
EchoLink : W2MMD-R

70 cm Repeater
Output : 442.100 MHz
Input : 447.100 MHz
Offset : +5 MHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)

The above repeaters are both
located in Pitman, NJ
GPS : 39.728481°, -75.131088°

1.25 Meter Repeater
Output : 224.660 MHz
Input : 223.060 MHz
Offset : -1.6 MHz - PL : 131.8 Hz
Location : Sewell, NJ
GPS : 39.746738°, -75.077094°

SKYWARN™ Net
Sunday @ 1930 : 147.180 MHz Repeater

Gloucester County ARES Net
Sunday @ 2000 : 147.180 MHz Repeater

GCARC TechNet ZOOM Forum
Available Every Monday @ 1930 Hours
Join ZOOM Meeting Link :
https://bit.ly/3K8bWwj

Tuesday AfterNoon 2M Net @ 1200 Hours

Monday & Thursday Night 40M Net
1930 Hours
7.290 MHz (+/- 5 kHz)

Thursday 2M Net @ 2000 Hours

Meeting Calendar

General Membership Meeting
Wednesday, April 2, 2025
1900 Hours
Pfeiffer Community Center
Simulcast Live on ZOOM
Meeting ID : 914 7364 1808
Passcode : 843147
Join ZOOM Meeting Link :
https://bit.ly/3Pt4dLO

Board of Directors Meeting
Wednesday, April 16, 2025
1900 Hours
W2MMD Clubhouse

"Ask not what your Club can do for you, Ask what you can do for your Club"
- KA2OSV

"There's More To Ham Radio Than You Can Possibly Do!"
- K3TS

*** Badges ***

Need a new or replacement badge
Contact "*The Badge Man*"

Chris Prioli, AD2CS
chris@ad2cs.com

Question Pool Answers : E2D01:B; E2D02:D; E2D03:D; E2D04:C; E2D05:B; E2D06:A; E2D07:C; E2D08:C; E2D09:A; E2D10:C; E2D11:D